WRATISLAVIA ANTIQUA 25

AGATA MACIONCZYK

# PLANTS IN FUNERAL CEREMONIES IN POLAND AND EUROPE NORTH OF THE ALPS (13th-18th CENTURIES)

ZESPÓŁ DO BADAŃ ŚREDNIOWIECZNEGO I NOWOŻYTNEGO WROCŁAWIA
RESEARCH TEAM STUDIES ON MEDIEVAL AND EARLY MODERN WROCŁAW

# WRATISLAVIA ANTIQUA

## STUDIA Z DZIEJÓW WROCŁAWIA
## STUDIES ON THE HISTORY OF WROCŁAW

## 25

Uniwersytet Wrocławski
Instytut Archeologii

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# TABLE OF CONTENTS

# INTRODUCTION

In the funeral ceremonies of the Middle Ages and modern era, plants were used in the form of cut flowers, bouquets, twigs, wreaths, maiden crowns, pillow fillings, coffin mattresses or grave pit linings and other types of decorations made from natural and artificial components. Fruit and sprigs of herbs were considered a gift for the deceased, an attribute of those who attended the ceremony, which was put into the coffin after it finished. Twigs were used to decorate not only the body, but also the home where the wake was held. Plants placed in burials were meant to have practical functions: to decorate, provide fragrance, preserve, desiccate, absorb the products of decomposition, facilitate the positioning of the body, repel pests, provide peace and quiet, protect the deceased and the living from evil and to carry a moralising message to the mourners. Dry organic matter served as filling for the bottoms of coffins, pillows, mattresses and even coffin quilts. Herbs were used to preserve corpses through the process of embalming. They were applied to the bodies and to the garments in which the dead were laid to rest. Wild and cultivated plants, including edible cereals and fruit, were also placed in the coffins. Plant motifs can be found on decoration of coffins or grave furnishings and other artefacts associated with the funeral process. Plants and plant motifs used in modern funerary ceremonies can be associated with both medical knowledge, magical beliefs and symbolic meanings.

The aim of this study is to interpret plant remains contextually related to burials dating from around the early 13$^{th}$- late 18$^{th}$ century. Their role and significance in the funerary ceremony at this time in Europe north of the Alps will be presented. A considerable part of the text is focused on the customs of Central Europe, especially the lands of Poland, where during the analysed period original elements of the setting of burials developed, but also the practices of Christian burial formed in other parts of Europe were assimilated. The lands of Europe north of the Alps were chosen as a reference because of close climatic and vegetation characteristics, a similar time of reception of the European intellectual legacy associated with botanical knowledge and increased development of plant cultivation techniques.

The beginning of the chronological frame chosen can be defined as a period of stabilisation of the Christian funerary liturgy and funerary symbolism, including plant motifs. The study mainly focuses on burials dating from the High Middle Ages to the end of the modern period which is characterised by the greatest variety and extent of funerary practices associated with plants. The study refers to phenomena preceding the chronological span, and to the followings developed on the basis of modern funerary customs. The analysis includes artefacts from archaeological research and exploration of burial sites located in Poland, the Czech Republic, Germany, the Netherlands,

Belgium, Austria, Switzerland, France, Great Britain, Denmark, Finland and Sweden. In addition to archaeological finds, iconographical representations showing the deceased before burial surrounded by funerary plants were included as source materials for the study.

The analysis involved tracing the variants and uses of botanical specimens or artefacts made from plants (categorised as flower, sprig, bouquet, wreath/grave crown, grave/coffin lining or cushion filling) in burials and identifying their function. The topic of embalming is excluded from the study, although the findings from the examination of the bodies of the deceased subjected to these processes are listed in the catalogue. The origins of corpse conservation practices are probably to be traced to Southern Europe, from where comes a considerable number of archaeological finds and historical written records. Thus, more reasonably, the embalming should be covered in a wider context than Europe north of the Alps. Attempts to characterise the function of plants in burials are based on contemporary natural experiments, ethnobotanical data (also in historical terms on the basis of herbaria, iconography, written sources), and information about plant symbolism in the past, assuming its considerable universality for Europe north of the Alps.

Among the main research questions were the continuity of the use of plants in funerary ceremonies between the Middle Ages and the modern period, and to a minor extent: between Antiquity and the Middle Ages and between the early modern and the modernity periods. A further focus was to demonstrate the possible evolution of customs involving the use of plants in ceremonies that occurred in parallel with the transformation of the funerary ceremony, and to identify trends or key factors that modified the development of these customs. Species of plants important in funeral ceremonies across the study area are distinguished, along with general trends influencing the selection of plants suitable for coffins. The study also addresses the origins of the customs or the manners of the plant use itself in ceremonies in the past, the patterns and directions of their spread. The basis of the research method adopted in this study is the necessity of combining the apparatus inherent in archaeology with that used in other disciplines and specialities.

The main type of sources employed in this study are identified and described plant remains and traces of the presence of plants from burials understood as places of intentional burial of the dead in the past. These plants are associated with the funerary ritual practised by representatives of Christian, medieval and modern European societies north of the Alps, from the 13$^{th}$ to the mid-19$^{th}$ century. The terms ritual, rite and ceremony are often used interchangeably, as the definitions of these terms remain difficult to establish conclusively. Ceremony is considered to be an act of secular nature in which, unlike in rituals belonging to the realm of religion, a clear worldview is obscured. However, the ceremony contains some elements of liminality, i.e., a state of transition which is one of the phases of a ritual according to Arnold van Gennep's conception (van Gennep 2006: 151, 152). Ceremony, following Raymond Firth, would be defined as a set of formalised behaviours where the significance lies rather in the form itself and the social impact, not necessarily in the expected effectiveness (Firth 1967: 73 cited in Dąsal 2018: 15-22). Rituals are traditionally attributed in anthropology to societies with a magico-religious orientation, whereas ceremonies are characteristic of industrial and post-industrial societies. Ceremony is an intentional activity associated with the perpetuation of social order, concentrated on the external form of action, and containing elements of social theatre.

In the fossil materials, only part of the information on the species structure of the ancient flora is preserved. Plant fragments are not always preserved in a condition that allows identification to the species level, and often it is not possible to determine from which plant they were extracted. Archaeobotany investigates the accumulations of dead plant fragments revealed at archaeological sites using methods characteristic of botany (Sady 2017: 225-226). The basic procedures for archaeobotanical investigation are the identification of plant remains and the creation of a list of plant species that were occurring on the site in the past (Sady 2017: 219).

Plant remains, discovered using archaeological methods, are preserved in macroscopic or microscopic form. Microscopic forms include: pollen grains, spores (of bryophytes and ferns), phytoliths ('silica formations in plant cells, also silica-saturated plant remains'), diatoms ('clusters of uni-

cellular algae') (Lityńska-Zając and Wasylikowa 2005: 44--45). Macroscopic remains represent seeds, fruit, organs of plants, i.e., leaves, stems, storage organs (rhizomes, tubers and roots), wood or bark (Lityńska-Zając and Wasylikowa 2005: 41). Objects made from organic raw materials are also sometimes classified as archaeobotanical sources (Sady 2017: 219).

Plant remains, like most materials of organic origin, are able to survive in stable conditions in which the decomposition process is slowed down. Not all plant parts are equally likely to survive in archaeological deposits. The most easily decomposed parts are vegetative organs, while fruit, seeds, wood, culms and leaves of grasses are more resistant to decay (Lityńska-Zając and Wasylikowa 2005: 41).

Preservation of plant remains occurs most often in peat (with high humidity, low pH, low air access, if the site is below the groundwater level), by charring (enrichment of the remains with carbon as a result of high temperature with low air access, since charred plants are not subject to decomposition by microorganisms), total desiccation (in very dry climates the lack of moisture prevents the growth of bacteria and fungi), mineralisation (saturation of the tissues with mineral compounds, e.g. phosphates from water, bone or faeces), negative imprint (e.g. in clay) (Lityńska-Zając and Wasylikowa 2005: 41-45).

The last type of sources that provides information about the ancient flora can be defined as entomological. A study of a presumed burial at Øksnes was recently published in which the presence of beetles feeding on plants was recorded, providing indirect evidence for the presence of plants (hay) at this site in the past (Panagiotakopulu *et al.* 2018).

In conclusion, the most favourable conditions for the preservation of plant remains are constant humidity and temperature. The necessary conditions for the preservation of plant remains usually exist in covered objects, such as crypts and spaces under the floors of churches and chapels. It is mostly more difficult for botanical remains to survive in open sites.

The role of plants in culture and the interaction between plants and people is studied by ethnobotanists. Ethnobotany is a speciality sited 'between' botany and ethnology. Within it the research is conducted on herbal medicine, plant diets, psychoactive species, the use of plants in cosmetology, engineering, and other aspects of everyday life.

As defined by Alicja Zemanek: "Ethnobotany is an interdisciplinary field that studies the relationship between humans and the plant world. These relationships which are very deep and undergo transformations as civilisation develops, extend to various aspects of our existence, from the practical sides of everyday existence to various spheres of spiritual life, such as beliefs and rituals or plant inspirations in art and literature [...]." Ethnobotanical research therefore requires an interdisciplinary approach and the involvement of more than one disciplines, such as botany, ethnology, linguistics, history of science, medicine, agriculture and culture (Zemanek 2000: 201).

This publication refers to various ethnobotanical compendia of traditional botanical knowledge, most notably the works of Adam Paluch (Paluch 1984, 1989) and Adam Fischer's dictionary, which is a compilation of archival botanical information collected from all over Poland (Fischer and Kujawska 2016). Particularly valuable from the point of view of the subject of this study is the authors' holistic approaches to former medicine, which includes therapeutic methods that escape modern rational mindset. The compendia mainly contain information on the use of plants in medicine, but there is also information on their use in veterinary, hygiene, insect and rodent control, customs linked to the realm of beliefs, annual rites and magic.

# 1. PLANTS IN FUNERAL CEREMONIES IN POLAND AND EUROPE NORTH OF THE ALPS – AN INTRODUCTION

## 1.1. History of the scientific exploration and description of plants

In the past plants have accompanied man in many areas of daily life. They have served as food, raw material for the manufacture of everyday objects, clothing or building material for the construction of shelters. They were used in rituals and were one of the basic raw ingredients for medicine purposes.

A key influence on the history of plants in Europe north of the Alps was the activity of the Benedictines who from the 6th century AD began to establish monasteries with vegetable gardens, orchards as well as hospitals with medicinal gardens. They contributed to the spread of plants of Mediterranean origin and the model of their cultivation outside their primary area of origin. In the 9th century, Charlemagne released recommendations for horticulture and cultivation which included approximately 70 species of plants (*Capitulare de Villis*, 812). The Crusades, as a result of which Europeans were introduced to certain exotic plants, were also breakthrough for the advancement of knowledge about botanical specimens (Waniakowa 2012: 52). The reconstruction of the set of plants that were known in the Middle Ages in various parts of Europe has been one of the main issues of ethnobotanical research from the late 19th century to the present day. John Harvey in *Medieval gardens* gave a list of 430 botanical species which Europeans encountered by the end of the Middle Ages (Harvey 1981: 163). Ülle Sillasoo compiled a list of plants appearing in medieval and early modern religious representations from parts of Central Europe, covering Austria, South Tyrol, Hungary, Slovakia, the Czech Republic and southern Germany (Sillasoo 2003). In order to identify plants brought to Northern Europe by monks, studies of the flora of abandoned monasteries and church ruins are also being conducted (Åsen 2009).

In the Middle Ages, one of the most famous treatises on medicine, hygiene and diet was *Regimen Sanitatis*, compiled at the medical school of Salerno. About plants wrote the famous scholars of the Middle Ages – Hildegard of Bingen (1098-1179), Albert the Great (1193-1280) or Vincent of Beauvais (?-1264) (Waniakowa 2012: 52--53). The herbal medicine of the Middle Ages was revolutionised by the Swiss physician Aureolus Theophrastus Bombastus von Hohenheim, known as Paracelsus (1493--1541), who believed that the healing factor within a plant was a chemical compound. He considered the chemical imbalance of the organism the cause of disease. Paracelsus' views initiated the rise of medicinal chemistry (Waniakowa 2012: 55). The oldest Polish treatise on therapeutics involving the use of plants is the *Antibolomeum* of Jan Stanko of Kraków from 1472 (Waniakowa 2012: 57).

In the early modern period, an important role as domestic medical manuals played so-called: herbaria. Polish herbaria, as in many other areas of Central and Western

Europe, appeared at the end of the Middle Ages and in the early modern period. Among the most popular were: Stefan Falimirz's *O ziołach i mocy ich* (*On herbs and their power*) from 1534, Hieronim Spiczyński's *O ziołach skutecznych i zamorskich* (*On effective and overseas herbs*) from 1542, Marcin Siennik's *Herbarz* (*Herbarium*) from 1568, Marcin of Urzędów's *Herbarz Polski* (*Polish Herbarium*) from 1595, and Szymon Syreniusz's *Herbarium* (*Herbarium*) from 1613.

Of the European herbaria, the following should be mentioned: John Gerard's *Catalogue of Plants* from 1596, William Turner's *New Herball* from 1597, Otto Brunfels' *Herbarum vivae eicones* from 1530-1536, Leonard Fuchs' *De historia stirpium commentari* from 1542 and *New Kreüterbuch* from 1543, Hieronim Bock's *Das Kreüter Buch* from 1539. A significant influence on the development of Polish herbaria were *Herbarius* and *Hortus Sanitatis* published in Mainz at the end of the 15th century (Waniakowa 2012: 54).

Stefan Falimirz's herbarium is modelled on last two works (Arabas 2006: 131). Marcin Siennik's herbarium represents a new edition of Falimirz's book, supplemented by engravings and inventories. The original literary works are the herbaria of Marcin of Urzędów and Szymon Syreniusz. Both authors had a medical background. In compiling their botanical compendia, they relied on their own experience and information gathered from people practising medicine. The information included in the herbaria, however, came mainly from the works of ancient writers (Arabas 2006: 131).

Among the ancient sources used by Renaissance herbaria authors was the legacy of Hippocrates of Kos (460-about 377 BC), whose works written down by his disciples, are known as the *Corpus Hippocraticum*. The most frequently copied ancient botanical work was Dioscorides' *De materia medica* (54-68 AD) and Pietro Andrea Matthiole's (1501--1578) commentary *Compendium de Plantis* from 1544. Other sources include *On the History of Plants* and *On the Origin of Plants* by Theophrastus of Eresos (372-287 BC), *De arte medica* by Aulus Cornelius Celsus (1st century AD), *The Art of Medicine* and *On the Cannons of Medicine* by Claudius Galenus (129-199 AD), and *Historia naturalis* by Pliny the Elder (books XII-XXVII refer to plants). Also worth mentioning are the numerous apocrypha and compilations of various treatises, Arabic and Greek translations of ancient works which discovered in later centuries were sometimes incorrectly attributed to ancient authors or saints (Sokolski (red.) 2014: 21-23).

The significant impact of Renaissance herbaria on the increase in plant knowledge and healing was connected with the print invention. On the pages of printed books previously dispersed information could be gathered, visualised and then reproduced without major distortions. The plant knowledge was made more easily accessible by publication in national languages. Clear plant illustrations enabled readers to identify the described species on their own.

In the first half of the 18th century, household handbooks and calendars, serving as home encyclopaedias, were brought into use on Polish lands (e.g., by Jakub Kazimierz Haur). They contained practical medical advice, linked to astrological information, weather forecasts, tables of sunrises and sunsets, various topics from the Scripture, and also concerning history, geography or agriculture. They were written by scientists or amateurs in different fields, not necessarily physicians.

The 19th century marked the beginning of the study of folk culture on Polish lands. At that time, Polish traditional culture was regarded as a living monument of the pre-Christian era. As research developed, it began to be doubted that some of the folk magic and plant-related customs were relics of the culture of the pre-Christian Slavs. The 1845 work *Medical Superstitions of Our People* by Michał Zieleniecki differs from the works of writers upholding a romantic vision of folk culture. The author noted that certain instructions for acquiring herbal raw materials for folk medical treatments came not from Slavic tradition, but from literature (Zieleniewski 1845: 69-72). They probably were transferred into the polish peasant population's awareness through the herbarium of Szymon Syreniusz.

One of the most important figures for Polish ethnobotany and archaeobotany was Józef Rostafiński. An essential part of his scientific activity were ethnobotanical studies, which he conducted both historically, i.e., analysed information contained in written sources, mainly early modern herbaria, and collected information on traditions cultivated by his contemporary residents of Polish villages. He developed a method of comparing the collected ethnographic

surveys with historical information. Józef Rostafiński is also the author of the first Polish archaeobotanical study[1].

Józef Rostafiński's considerable scientific contribution is the identification of the contemporary plant names with the old Polish ones and the creation of a list of species probably known and used in medieval Poland. Rostafiński concluded that Christianity had displaced or replaced all elements of Slavic culture. He noted that numerous elements of folk herbalism could be traced back to works of Dioscorides or Pliny's *Historia Naturalis*. Allegedly Slavic names quoted by authors of early modern herbaria were in fact loan translations from Greek or Latin.

Rostafiński also questioned the Slavic origins of the custom of ordaining herbs on the 15th of August the Feast of Assumption of Mary (Feast of Our Lady of the Herbs). He undertook a historical, botanical and etymological analysis of the texts of the church blessings, and concluded that the custom originated from the Jewish harvest festival taken over by the Christian Church in the East which then spread to the Roman Catholic Church. An analysis of the sacred bouquets revealed that they contained mainly cultivated rather than wild species. Later, herbs of Mediterranean origin promoted by the monasteries, began to be included. He also examined relics of the influence of medieval monasteries on the folk uses of plants (Zemanek 2000: 205).

As current historical research demonstrates, peasants were relatively quickly assimilating new cultural elements. The nobility, having better access to sources of botanical knowledge, played a significant role in the formation of folk herbal medicine. According to the *Encyclopaedia of Old Poland*, in almost every landed gentry residence there was a home larder-apothecary: "in every Polish manor and manor house there was a home apothecary, as well as in every monastery [...] A lord's larder with an apothecary remained under the management and care of the apothecary maiden who dispensed cooks, fried confiture, prepared tinctures and home remedies, baked gingerbread and with the girls collected medicinal herbs. She was usually a distant relative or a poor maiden or orphan who did not marry, but who found care and family warmth in a more affluent home" (Gloger 1902: 319).

The apothecary maids were residents in manor houses, widows and unmarried women of noble origin, usually with only a basic education. The duties of the so-called apothecary maiden included, in addition to the function of pharmacist and physician, the production of remedies and providing aid to peasant families in the event of illness or accidents. Apothecary maidens usually relied on medical literature and information passed on verbally. They often held Polish Renaissance herbaria at their disposal. Medical and botanical knowledge from the manors transferred to the countryside and reverse. It is impossible to determine which methods and remedies were known in the manors thanks to the literature and which were adopted by oral transmission from village herbalists (Arabas 2006, 25, 26).

### 1.2. Plant symbolism

Plant symbolism can refer to many levels of meaning from a broad religious and secular tradition (Goody 1993: 175-176). Many authors emphasise that plant symbolism is variable. The interpretation of botanical specimens depicted in visual and literary artworks always depends on the context. The same species can allude with different symbolic meanings, even contradictory ones. Moreover, hidden messages are also not to be found in every depiction of plants in art and literature (Michniewska 2014: 55). The range of certain symbols remained only regional in the past. As Jacek Sokolski wrote, there is no common symbolic scheme, but familiarity with the common language of former symbolism makes it possible to recognise which components can be considered universal, and which should be interpreted individually (Sokolski 2000: 37).

A symbol in the Middle Ages was developed through analogy, i.e., similarity between words, concepts, objects or between a material thing and an idea. Material objects and living beings could conceal hints of the supernatural world. Medieval science and education relied on exegesis to expose the hidden significances of materiality (Pastoreau 2006: 21).

[1] Rostafiński identified plants found on Peruvian mummies donated to the Academy of Arts and Sciences in Kraków by Władysław Kluger in 1876. His conclusions, supported by ethnobotanical and historical information, were presented at a commission meeting in 1877 (*Posiedzenie Komisyi antropologicznej dnia 1 czerwca 1877…*).

In early modern Europe, dominant became a conception of the world, described by scholars as 'emblematic'. This term refers to the widespread belief that each of the elements of the real world is a sign and therefore has a double meaning – physical and metaphysical.

In modern Europe developed various literary and graphic forms aimed at revealing and facilitating the understanding of secret contents hidden in the reality. Their formation was inspired by the literature of Antiquity and the Middle Ages. Collections of word-picture compositions, so called emblems, that included also elements of plant symbolism, became popular sources of knowledge and art ideas. As the conventional origin of emblematics is considered the publication of *Emblematum liber*, by the Italian jurist and poet Andrea Alciati in Augsburg in 1531. Another work that had a significant impact on the development of modern iconography is Cesare Ripa's *Iconologia*, first published in 1593 (with illustrations as late as 1603). It contained a collection of female personifications illustrating a variety of concepts.

In emblematics word and image were combined. Emblems were composed of a motto, a graphic representation, and a fragment of prose or a poem providing an explanation (Pelc 2002: 9). The creators of emblematic books drew on all the sources available: the Holy Bible, natural history, historical works, bestiaries, herbaria, works of art, and emblematic works by other authors.

The symbol in the early modern period was considered a more general construction than the emblem, based on the similarity of things or concepts. The emblem, on the other hand, could refer to narrative stories. In fact, emblems and symbols were not always differentiated (Pelc 2002: 53). Iconological personifications also referred to emblems and employed symbols (Pelc 2002: 48). Plant attributes were depicted with them, and their meanings make an important contribution to early modern botanical symbolism. Emblematics and iconology influenced the rituals and ceremonies. Fashioned emblems and personifications were applied to funeral arrangements and tombstone designs.

Schools where prints were collected and handwritten compendia were created, played a leading role in the dissemination of an emblematic mode of reasoning. Emblematics knowledge crossed cultural and national boundaries. In Central Europe emblem handbooks were created and collected by the Jesuits, but Protestant collections originating in the Netherlands were also renowned (Pelc 2002: 45).

The early modern naturalists, and the authors of emblematic works, attempted to combine the creations of nature with culture. They thus interpreted environmental information on symbolic basis. At the core of these efforts was the conviction that nature was created for the benefit of man and that within it are hidden clues to the good living. A crisis of this concept started in the 17th century when a new model of performing science, based on experiment and experience, began to take form. However, the evolution of science proceeded slowly (Kowzan 2010: 136-138). The re-printing of medieval and Renaissance botanical texts and illustrations continued into the 17th century. In the Polish provinces, Renaissance herbaria still constituted the theoretical basis for medicinal practitioners in the 18th century.

Plant symbolism in the modern period was affected by two approaches towards nature. On the one hand, it was believed that the beauty of nature was distracting and distanced from God. The modern period was heavily influenced by the idea of *vanitas*. Works of art conveyed didactic messages of a condemnation of luxury and attachment to earthly possessions, which were represented by plant symbols such as exotic fruit or the pricey tulips. On the other hand, plants and other natural creations were the signs contributing to the cognition of God (Goody 1993: 181-182). The formative purpose of early modern scientific works induced authors to ascribe moral qualities to natures creations (Kowzan 2010: 136-138).

Plants can be associated with the symbolism of vanity and an invitation for a turn towards eternal truths. Virtues were also an important theme in the modern period, personified in iconology and emblematics as figures bearing plant attributes. These motifs, along with the combination of extremes – earthly and heavenly, beauty and ugliness, death and life were part of the Baroque aesthetic and are evident in funeral ceremonies from this time. The application of plants at funerals is in accordance with the character, expression, essential concepts and fashions of the period.

The aesthetic appeal of the deceased body played a significant role due to the custom of presenting the corpses before burial. Plant grave decorations can be regarded as serving both decorative and symbolic functions. Usually, although there are remains of flowering plants in graves, at the same time they can belong to medicinal, magical and fragrant species, so the interpretation should not to be narrowed down to a decorative function. Plants in funerary ceremonies, especially in the form of wreaths and bouquets, emphasised the social status of the deceased. Botanical species with mediating and apotropaic qualities were appropriate for liminal circumstances. Plants were to aid the transition of the deceased into the afterlife and to accommodate the change in his or her status in the community.

The characteristics of plants: colours, scent, shape and number of organs, the time of flowering, the time of day at which the flower opens or closes, were thought to provide clues by which their significance and functions were determined. According to Paracelsus, the appearance of plants, the colour and the external features showing similarity to human organs, could reveal the therapeutic purpose of plants (Wajda-Adamczykowa 1989: 76).

As Katarzyna Pińska and Agata Sady wrote, plants placed in burials were likely to be colour-selected. In the modern graves from Central Europe analysed by these authors, purple and pink flowering plants were most common (Drążkowska (red.) 2015: 322). Purple, considered a shade of black in the Middle Ages, was the colour of liturgical vestments used by priests during Advent and Lent. Black was reserved for funeral masses and Good Friday (Pastoreau 2006: 139). In funeral ceremonies, black has been the colour of the vestments worn by mourners since the 16th century. However, interpretations can be challenged, as the perception of colour is a cultural and not an objective criterion. Furthermore, as today, in the past, among flowering plants ornamental flowers and plants with purely utilitarian values were distinguished.

An analysis of folk literary texts and songs indicates that, in the past, colour may have been more important than plant species in healing and magic, probably because of the difficulty of identifying medicinal plants in nature (Kapeluś 1989: 59). However, the attribution of colours to the species that represent them may have differed in the past from that of the today. This is suggested by traditional plant names, e.g.: common chicory in some regions of Poland was called *blajwas* (from the German 'Bleiweiß' – lead white) after the colour of the inside of the stem, rather than the colour of the flower (Waniakowa 2012: 152). Quick associations may also vary due to limited contact and the fact that many traditional uses and methods of processing plants have been abandoned today. Hence, the colour of individual plant organs may seem less important than that of the flower, while in the past, for example, leaves, juice, shoots, roots etc. may have been extracted and used more frequently than blooms.

## 1.3. The state of research on the subject of plants in medieval and modern burials

Plants were probably used more frequently in burial ceremonies in the past than it is indicated by the number of published archaeological discoveries. In recent years, the number of archaeological finds has expanded considerably due to the extensive interdisciplinary cooperation between archaeologists and specialists from various disciplines of natural science. Greater emphasis is being placed on microstratigraphy of burials and testing the potential for various types of analysis on recovered material, including botanical studies. However, the scientistic approach has not yet generated an in-depth analysis of the results of botanical identification from historical, social and cultural perspectives, nor the methodological tools that would serve it. So far, there has been no attempt to create a synthesis of the subject.

The scarcity of sources for the study, in proportion to the number of excavated burial sites, is the result of the combination of several factors. Above all the reason is delicate nature of organic materials which need certain conditions to survive. Thanks to development of archaeology as a discipline the perception of the significance of archaeological finds from early modern period and the valuation of individual burial elements have changed over time. From the perspective of the study area, the value of explorations conducted in the past is inferior in the light of the contemporary expanding range of expertise and the avail-

able tools and methods of scientific analyses. During past excavations of burial sites, botanical samples were rarely collected. Botanical remains from medieval and modern burials before the end of the 1990s were investigated in Europe in a few cases and only when discovered in the macroscopic form.

Burial sites, especially graves of rulers and tombs located in significant historic buildings, had already been explored from the 18th century. In the 19th century, due to Europe-wide trend of restoration of historic buildings, many of the crypts and tombs were opened up, often irreversibly demolishing the context or completely destroying their contents. While it is still possible to re-examine artefacts from burials that are kept in museum or private collections to this day, reconstructing the stratigraphic context and the botanical composition of the soil or the casket is today utterly unachievable. During past restorations, plant remains were often removed from portable artefacts, such as garments, without being identified by the botanist.

Considering the modern period as the time of the most intensive use of plants in funerary ceremonies, a factor significantly contributing to the insufficient state of study on plants in funerary context, is the negative attitude towards finds from this period, for a long time not considered as being worthy of archaeological research attention. The archaeology of early modern times is one of the youngest fields in the discipline of archaeology, having been developed in Western Europe methodically for only about 40 years. Analogous approach can be witnessed today with regard to graveyard finds dating back to the 19th-20th century.

A problem faced in the post-war years was the devastation of many cemeteries and resting places established before 1945. This was especially the case in Central and Eastern Europe which underwent social transformations in accordance with socialist ideology, when many private estates of the elite, along with their crypts and family mausoleums, became common property. Another issue was the removal of cemeteries of ethnic and religious groups that had been exterminated or displaced during and after the Second World War. In post-war Poland, memorials, gravestones and cemeteries associated with the German ethnicity were being destroyed and removed. In Wrocław (in German 'Breslau') in the 1960s and 1970s most of the then existing Protestant cemeteries established before 1945 were demolished and the few that survived were handed over to the Catholic parishes. Archaeologists' interest in Protestant burial customs on Polish territory has developed more dynamically only since the beginning of the second millennium.

In the case of medieval and modern burial sites, the results of archaeological research are published in the form of articles, or article series, rather than monographs. Usually, only selected and most interesting finds are published. Publications of the research results include the conclusions of the anthropological report and comments on the grave furnishings, extended by an in-depth analysis of selected artefacts. The range of analyses carried out and the choice of artefacts to be examined depends not only on the character of the site, but also to a large extent on the personal interests of the researcher and team members. During the exploration process, botanical samples are gathered, which are then analysed by specialists in archaeobotany, who provides the plant species identification. Cultural interpretation of botanical finds is usually the task of the archaeobotanist, less often of the archaeologist. In addition to information on the plant distribution and biology, the study usually includes briefly reviewed cultural references, mostly extracted from the ethnobotanical studies. Different ways of publishing botanical results are applied, ranging from presenting full quantitative details of the report, through merely listing the identified species sometimes complemented with information on what sort of plant organs were recognized in the material, to employing the most general terms (herbs, moss, hay, twigs, etc.). Often botanical analyses are not carried out, but the researchers' observations of the plants in the burials are noted during the exploration. It is still rare to collect samples for palynological studies from burials placed in crypts. The study of grave cushions is usually limited to the identification of macroremains. Species identification of the organic parts of grave wreaths is carried out sporadically.

One of the earliest archaeobotanical studies of samples collected from burial context was carried out by the discovery of the burial place of the Polish Dukes from Piast dynasty, Janusz III and Stanisław. Exploration of the acci-

dentally disturbed crypt under the presbytery of St John's Archcathedral in Warsaw began in 1953. The research report and the results of specialist analyses were published in 1997 in a paper by Włodzimierz Pela (Pela 1997). The appendix contains report from study of botanical samples from the coffin fillings made by Ewa Perkowska in 1972 (Appendix II – *Provisional set of plants found in the coffins of the Dukes of Mazovia*). The publication contains also an opinion on finds from 1996 by Maria Henslowa, an ethnographer specialising in folk medicine.

Initial observations of plant remain stuck on pieces of clothing and coffin equipment were made by the conservators. Plant remains were investigated during conservation works performed on various sarcophagi and coffins from early modern crypts in the 1970s to the first half of the 1990s (Zöllner 1974; Rawa-Szubert *et al.* 1981; Diefenbach and Sörries 1994). For the study of the tomb of Polish King Kazimierz IV Jagiellon in the Wawel Royal Castle Cathedral in Kraków, information on the presence of plant remains in the archaeological material was only brought to light by the re-examination and conservation of the relics of the sepulchral garment, stored in the Kraków Royal Cathedral, since their excavation in the 1970s. Conservation was carried out in 2001-2003 by the Department of Conservation and Restoration of Historic Textiles at the Faculty of Conservation and Restoration of Works of Art of the Academy of Fine Arts in Warsaw. The results of the examinations of the objects before conservation, including the analysis of the few botanical remains present on the robes, were described in 2010 by the Head of the Department, Helena Hryszko (Hryszko 2010).

Hryszko also participated in the conservation of textile relics excavated from burials under the floor of famous church of Jasna Góra Monastery in Częstochowa, southern Poland, in 2009-2012 (Hryszko 2013). The plant remains discovered at this shrine were compiled by Halina Galera, Emilia Jurkiewicz and Barbara Sudnik-Wójcikowska from the Department of Plant Ecology and Environmental Conservation at the University of Warsaw. This study, included in one of the chapters of the site's monograph, is one of the first in Poland to deal entirely with the function and significance of plants in the modern funerary ceremony. The described archaeobotanical materials retrieved from the graves are cross-referenced with ethnographic information and historical accounts of the individual herb species identified. A separate subsection includes an analysis of the reasons for which the selected plants were placed in the coffins. The authors distinguished five possible causes: preservative properties, medicinal and magical properties, aesthetic functions, aroma, and use as a lining (Galera *et al.* 2009).

Currently in Poland, the leading centre for research and conservation of finds from early modern burials is the Institute of Archaeology at Nicolaus Copernicus University in Toruń, northern Poland. Survey and conservation of artefacts from early modern burials from across the country is carried out by Małgorzata Grupa. Interdisciplinary teams are formed each season for the archaeological research of crypts, consisting of academics representing both the humanities and sciences. Particularly relevant to the subject of sepulchral plants are the findings from explorations of burial sites in the cemetery and St Nicholas Church in Gniew (Grupa *et al.* 2015a), the Church of the Name of the Blessed Virgin Mary in Szczuczyn (Dudziński *et al.* 2015, 2017; Grupa *et al.* 2013, 2014), and more recently the examination of sarcophagi from the Hochberg crypt in Świebodzice (Kulpa *et al.* 2019).

The history and conservation of historic textiles is also the main subject of studies by Anna Drążkowska, also working at Toruń University. Problems of the use of plants in funerary ceremonies have been mentioned in her articles on burial furnishings published since the early 2000s (Drążkowska 2005, 2006, 2007a, 2007b). Notable are the articles on grave wreaths (Drążkowska 2006, 2007a) and coffin cushions (Drążkowska 2007b) in which emphasis was placed on the problem of the function and significance of the plants used. In 2014, a monographic study of the results of research on human remains, coffins and furnishings from burials of bishops in crypts located under the Przemyśl Archcathedral (southeastern Poland) was published (Drążkowska 2014). A separate chapter of the publication is focused on the plants discovered in the coffins. The identification of plants used for embalming of the deceased bishops buried in Przemyśl was possible. Such a summary of herbs used for embalming was published in Poland for the first time. In 2015, Anna Drążkowska

completed the research project: *Funerary culture of the elites of the First Polish Republic in the 16th-18th centuries on the territory of the Kingdom of Poland and the Grand Duchy of Lithuania*. The project culminated in a publication of texts by a number of authors concerning examination of various elements of early modern burials. The work includes a chapter on plants discovered in coffins, presenting the results of investigations in the Przemyśl crypt, burials from the Archcathedral of St John in Warsaw, the Church of the Finding of the Holy Cross and St Andrew the Apostle in Końskowola, and the Church of the Visitation of the Blessed Virgin Mary in Trakai, Lithuania. A commentary on the results of botanical analyses in relation to ethnographic and historical data was presented by Agata Sady and Katarzyna Pińska. A monograph on the discoveries in the crypts of the Church of St Francis of Assisi in Kraków has also recently been published which contains a chapter on botanical findings (Drążkowska (red.) 2020)).

Research on medieval and modern burials in the monastery and basilica of the Holy Trinity in Strzelno and the cemetery at the Church of St James in Toruń which resulted in the discovery of grave wreaths and plant remains, was conducted under the direction of Krystyna Sulkowska-Tuszyńska, also affiliated with the Nicolaus Copernicus University in Toruń (Sulkowska-Tuszyńska 2006, 2007, 2010, 2022).

The multi-disciplinary team model also works successfully in funeral research in Germany. In 2009, *Arbeitsgemeinschaft Sepulkralkultur der Neuzeit (ar.se.n.)* research platform was formed in Brandenburg. Researchers centred around *ar.se.en*. carry out archaeological, anthropological and historical research on finds from cemeteries and crypts. Among the most important from the viewpoint of this study, are the examinations of the burials from crypts of the parish church in the Berlin-Mitte district, the cemeteries by other Berlin churches (Krebs 2002; Wittkopp 2002, 2015; Lippok 2007, 2015; Malliaris 2010, 2015; Escher *et al.* 2011) and the private crypt of the Schlabrendorff family in the cathedral in Brandenburg an der Havel („Historischer Verein Brandenburg (Havel)", J. 14, 2005).

Important discoveries were also made in the crypt beneath the Lüne Monastery in Lüneburg in Germany. During the restoration of the crypts, analyses of the preserved burial vestments, furnishings and human remains were carried out. Samples from the linings of the burials deposited in the crypt under the Chapel of St Barbara were examined in 2005. The author of the identification and interpretation of the results is the French archaeobotanist Julian Wiethold. With the findings in Lüneburg, the issue of the emergence of hop-based (*Humulus lupulus,* Fig. 90) grave linings in Europe north of the Alps has been brought back into scientific discussion (Wiethold 2005; Ströbl, Vick 2007, 2009, 2011; Ströbl *et al.* 2014).

In Germany, the centre for exhibitions, conferences and publications on medieval and modern funerals, including aspects such as the presence of plants in burials, is the Museum of Sepulchral Culture in Kassel. The subject of one of the first exhibitions at the museum, organised in 1993, were the coffins. The exhibition catalogue provided brief information on the interior fillings of the coffins of the von Stockhausen family presented (Diefenbach and Sörries 1994). The results of the botanical identifications were not published until 2007 (Rosinski 2007). In 2007--2008, the Kassel Museum organised an exhibition on wreaths and grave crowns. The publication *Totenhochzeit mit Kranz und Krone. Zur Symbolik im Brauchtum des Ledigenbegräbnisses* (Neumann (Hrsg.) 2007) is a collection of texts by specialists from various disciplines, presenting their research approaches to the study of maiden wreaths and grave crowns from the perspectives of history, art history, archaeology and ethnography.

In Germany, grave wreaths became the object of interest of ethnographers before they emerged as a research problem in archaeology. The term appeared in German encyclopaedia and dictionaries in the 18th century. The characteristics of burial wreaths was included in the *Frauenzimmerlexikon* by Gottlieb Siegmund Corvinus, published in Leipzig in 1715 (Corvinus 1715: 386). A definition of the term *Corona funebris* was provided in 1776 in the *Oekonomische Encyklopädie* (Krünitz 1776: 630-632). Otto Lauffer's pioneering article on wreaths and sepulchral crowns dealing with findings from an analysis of written and iconographic sources and examples of artifacts preserved in German churches was published in 1916 (Lauffer 1916). In 1976, a publication by Ernst Helmut Segschneider (Segschneider 1976) summarising the results of ethnographic inter-

views on wreaths and grave crowns collected in the German-speaking area between 1930 and 1935 was released. Only in the 1980s and 1990s grave crown finds started to be mentioned in German archaeological publications (Härke 1981) which is more or less corresponding with the situation in other European regions at this time (Bungeneers 1987; Beranová 1989). Single discoveries of grave wreaths were reported occasionally in previous archaeological publications (Streinz 1966/70). The information on grave crowns discovered in the Frauenkirche in Dresden were published in 1995. It is the first of the texts to identify conservation issues and to report on methods of documenting and reconstruction of this type of artefacts (Frenzel *et al.* 1995).

One of the few cohesive publications on the subject of grave crowns and wreaths from Germany is the study by Julianne Lippok (Lippok 2009). The author attempts to define the origins and to identify new research directions, above all the technology issues of the manufacture of the individual components of garlands and grave crowns, along with the characteristics helpful in classifying and dating this kind of finds.

Archaeological discoveries of funerary wreaths in Poland have been reported in print increasingly often since the early 2000s. One of the first texts dealing with this subject and an attempt of cultural and symbolic interpretation is the article by Anna Petrycka published in the "Quarterly of Material Culture History" in which the author mentions funerary wreaths from St Catherine's Church in Służewo, Warsaw, the Church of the Holy Cross in Szestno and St Anne's Chapel in Frombork (Petrycka 2003). The findings from churches in northern Polish urban areas have been published in several articles, in particular sets of wreaths and sepulchral crowns from the church of the Assumption of the Blessed Virgin Mary in Toruń (Drążkowska 2006), St John and the Holy Trinity in Gdańsk (Drążkowska 2007a), the cemetery at the church of St James in Toruń (Cicha 2011; Grzyb 2011; Sulkowska-Tuszyńska 2011, 2022) and the chancel and side chapels of the church of St Nicholas in Gniew (Grupa *et al.* 2015a; Nowak 2013-2014). Grave wreaths have been discovered in significant numbers in recently excavated cemeteries in Wrocław – at the church of St Peter and Paul in Ostrów Tumski (Pankiewicz and Marcinkiewicz 2012), St Mary Magdalene (Wojcieszak 2007, 2010a), at the Salvator cemetery (Guszpit *et al.* 2010; Sawicki 2015), at the church of St. Elizabeth and at the former All Saints' Hospital. Finds of grave wreaths have also recently been recorded from the Czech Republic − from the cemetery at the Church of St John the Baptist in Praha (Omelka, Řemounová 2008), from the Church of St Bartholomew in Rakovník (Čiháčková *et al.* 2011), and from the new cemetery in Opava (Kováčik *et al.* 2017). Remains of wreaths/grave crowns are also found in Opole in Silesia (Przysiężna-Pizarska, Cieślik 2012). Wreaths and burial crowns on Polish territory have been discovered, e.g., in the crypts of the church in Jasna Góra Monastery in Częstochowa (Galera *et al.* 2013), in Lublin, Szczuczyn, Byszewo, Kędzierzyn, the former Augustinian church in Stargard (Drążkowska 2016), and in the ruins of the church of the Blessed Virgin Mary in Kostrzyn nad Odrą (Drążkowska 2017).

In France, archaeobotanical studies on burials are carried out by botanical specialists who deal with different site types, dating from all chronological periods. Marie-Pierre Ruas is active in archaeological research organised by a unit created for this purpose within the Institute for Humanities and Social Sciences, Centre National de la Recherche Scientifique. In 1992, she published a study of pollen from inside Anne d'Alègre's coffin in Laval. A novel aspect of the study and method is the incorporation of palynological samples from inside the body of the deceased into the analysis. The most important issue investigated by French archaeologists is the question of the use of plants in the embalming of the bodies of the dead and the creation of linings. Comparisons of archaeological plant finds with data from written historical sources have recently been published by Rémi Corbineau (Corbineau *et al.* 2018).

In Northern as in Central Europe, intensified studies of modern burials have been carried out since the beginning of the second millennium. The distinctive nature of the finds from Northern Europe lies in the significant difference in terms of natural flora, climatic conditions and the specific traditions of the indigenous population. In Finland, botanical remains have been discovered in large numbers in modern church cemeteries and in churches dating from the 17$^{th}$-19$^{th}$ centuries. One of the most botanically

rich sites from Northern Europe is St Olaf Cathedral in Helsingør, Denmark (Karg 2001, 2012/2013).

The botanical studies carried out by the exploration of the crypt in the Church of the Blessed Virgin Mary in Breda in the Netherlands in 1996 were also a breakthrough (Maat *et al.* 1997; van Haaster and Vermeeren 1999; Maat 2013). It included the identification and palaeopathological analysis of the remains of the first members of the von Nassau family and also examination of plant macroremains from their sarcophagi. In addition, the samples of pollen collected from the burials of Engelbrecht II Nassau and Cimburga van Baden were analysed. Numerous species of exotic plants were identified which were used as linings and for the embalming of the bodies.

In 1999, a research project was initiated in the United Kingdom to gather information on medieval burial practices in Britain through detailed analysis of available samples obtained from cemeteries, mainly monastic. It included sites used from around 1050-1600. The result is a publicly accessible database containing information on over 8,000 excavated medieval burials from 70 separate excavations carried out in churches and cemeteries in England, Wales and Scotland. These data have been compiled and summarised in a monographic publication by Roberta Gilchrist of the University of Reading and Barney Sloane (Gilchrist and Sloane 2005a, 2005b). In many cases the information includes botanical finds, also from older research and conservation of buildings, crypts and tombs.

## 2. TRANSFORMATION OF THE FUNERAL CEREMONY IN THE MEDIEVAL AND MODERN PERIODS

In Middle Ages the sequence of Christian funeral rites was similar throughout medieval Western and Central Europe. Regional differences concerned practices not included in the liturgical prescriptions and depended on the status of the deceased (Koslofsky 2000: 22).

Initially, the medieval funeral was characterised by little Church participation. In the early Middle Ages, the role of the clergy was limited to giving absolution before death and at the place where the body was buried. The rest of funeral rites was secular in nature. It derives from pre-Christian traditions of Antiquity and from period of formation of local Christian liturgies in Europe. Until as late as the 5th century, the rituals of a Roman funeral – the straightening of the legs, the drawing of the last breath, the last kiss, were still acceptable in Christian burial ritual (Chrościcki 1974: 29). These early origins had a direct influence on the funeral rites of rulers, knights and clerics in monasteries.

In Western Europe, around perhaps as early as the 11th--12th century according to David Postles, or as Philippe Ariès considered in the 13th century, funeral practices pertaining to a hitherto closed group of clergies became shaped in ritualised form and began to penetrate into the laity. From this time onwards, burial was placed in the hands of professionals and the private stages of a secular funeral were replaced by an ecclesiastical ceremony (Gilchrist and Sloane 2005b: 7). In Middle Ages most of the funeral procedures involved deceased clergy and wealthy lay people, and the poorest were taken directly from the place of death to the cemetery.

Among the rites of passage not regulated by the funeral liturgy are customs with elements found throughout Europe, such as making noise at the time of death, laying the deceased on the floor on straw or ashes, lighting candles near the body, bathing and dressing the corpse, closing the eyelids, folding the hands, keeping vigil by the deceased.

Preparation for the funeral began before the death occurred. According to the model of a good death prevailing in the Middle Ages, it should not happen unexpectedly. It was preceded by warning signs so that the dying person was aware of his or her fate and had a chance to secure both spiritual and material matters. Sudden death was regarded as something exceptional and frightening. In pictorial representations and in written accounts, a person's agony always takes place in a bed, whether struck down by illness or battered by an accident, he or she has the time needed to perform all the ante-mortem activities (Ariès 2011: 118).

A good death was also one that was not faced alone. If dying took place at home, the family would gather at the bedside to recite prayers under the leadership of a priest. At the deathbed books of hours were usually recited. They contained prayers and psalms that were a shortened form of the breviary. Medieval French and Dutch manuscripts of the books of hours are among the most important icono-

graphic sources for understanding the funeral process at that time. The farewell to the dying person could also be attended by outsiders. At the same time, masses for the deceased's soul were beginning to be celebrated in churches.

The priest would arrive at the home of the dying with a solemn procession consisting of lower clergy. In the surviving illustrations from medieval books of hours, containers for communion or relics can be seen in the hands of priests visiting homes. The dying person was given communion in the form of a viaticum (Latin 'provision for the journey') and the last anointing. The priest would also hear a profession of faith from the dying person. This was followed by a confession and the writing of the will by the clergyman. If the dying person had received or purchased a letter of remission of sins from the Pope, it was read out in public. The priest recited the *Commendatio animae*, a prayer for the intercession of the saints in admitting the dying person to Paradise, serving to free the soul. At the time of death, wood was struck or a bell was rung. The priest, with a lit candle, sprinkled the body with holy water (Gilchrist and Sloane 2005b: 22).

A procession of clergymen carrying the chrism, the Holy Sacrament, holy water, the cross, candles and censers, would proceed to the deathbed. The dying person would make a public confession. Often, depending on the individual will, he or she would also opt for corporal mortification which served to express repentance and constituted penance for sins (Gilchrist and Sloane 2005b: 23). The ways of mortification included resting on the floor on straw, in ashes or with the head on a stone. The custom of laying the dying on straw, ash or a board was known in Europe as early as the beginning of Christianity, probably reinforced by the recommendations of the first popes (Deforce *et al.* 2015: 602). Initially adopted in monasteries, it later spread into lay practice.

Elżbieta Dąbrowska lists six elements of the ceremony of the clergy. First, the body was prepared for display in the church. Among these are the closing of the eyelids, followed by *denudatio*, *lavatio* and *vetura* ('exposing', 'washing' and 'dressing' the corpse) with the reading of liturgical texts. The next element is the display of the body in the appropriate church for the deceased, followed by the selection of the burial site, transport, the Eucharistic liturgy and the placing of the body in the tomb (Dąbrowska 1997: 10).

In early Christianity, death was conceived as release from the sinful world to a better life in heaven. The triumphant nature of early medieval funerals changed when the Church began to emphasize the punishment for sins and judgment awaiting after death (Litten 1991: 147).

The adoption of the Doctrine of Purgatory at the Council of Lyon in 1274 had a significant impact on funerary rites (Descoeudres 1995: 76). In the Middle Ages, there was a belief in the constant spiritual and physical presence of the dead in the visible world and the possibility of interacting with the living. The idea of purgatory helped to relieve anxiety and Christianise the magical treatments and superstitions associated with the presence of the dead. It opened up the possibility of changing the fate of the deceased through pious acts performed after their death (Koslofsky 2000: 24). The belief in the Last Judgement only at the resurrection caused people to try to supply the grave with visible tokens testifying to the reception of forgiveness for sins and good deeds during life.

In the late Middle Ages, the belief in a Particular judgement taking place at the deathbed became widespread. Above the dying person there was a battle for the soul between angels and saints on one side, and Satan on the other. The support in the dying, necessary because of the ongoing judgement, remained a custom in the modern period.

Intellectuals of the Renaissance ere condemned the elaborate medieval ritual of dying, including the placing of hope in salvation in extremis (the forgiveness of sins in the face of the danger of death). From then on, all life was to become a preparation for death according to the motto *memento mori*. Unnatural death and death in prolonged suffering were considered evil (Kizik 2001: 181). During prolonged agony, Catholics prayed or read meditations, usually on the death of Christ or Virgin Mary (Rok 1995: 48-49). Assisting at the bedside of the dying person was also important for Protestants, who believed that doubt at a critical moment could contribute to the dying person falling into the lure of Satan. Protestants, however, ultimately rejected the belief in purgatory, the necessity of prayer and sacrifices for the dead (Pawelec 2010: 64).

After death, the process of washing the body began. From this point the last service to the deceased was performed by women. Usually, families hired, for a fee, people to perform funeral services on a regular basis (Litten 1991: 124). However, there are illustrations where the preparation of the corpse is also carried out by men. In an illumination from the *Book of Hours* written in France in the 15th century (*Book of Hours*, c. 1445: M.304 fol. 20r), a group of equally dressed mourners anoints the body with oil scooped up from a tin with an oblong brush.

The bathing of the deceased took place on the floor. The body was laid on a straw mat, or a bed of hay or straw, in a horizontal position. At first the joints of the dead were stretched. The corpse was washed, disinfected with water and vinegar, anointed and perfumed. The Church recommended moderation in the amount of perfume applied. This procedure was modelled on the descriptions of Christ's burial (Chrościcki 1974: 29). If necessary, the deceased was shaved. Sometimes the bowels were also cleansed (Litten 1991: 124).

In the modern period, make-up and hair styling were performed on the dead body. In some cases, a statue or portrait of the deceased was used instead of showing the cadaver. Sometimes the corpse was equipped with fake limbs. Sophie Charlotte, wife of Friedrich Wilhelm I von Mecklenburg-Schwerin who was buried in St. Nicholas Church in Schwerin, was given gloved fake hands (R. Ströbl 2011b: 52). Paint retouching was done on faces (for example Brygida Czapska) or wax masks were applied (for example Polish King Jan III Sobieski) (Chrościcki 1974: 151).

In the modern period, the grooming of the deceased was the responsibility of the family or specialists hired for this activity. In the cities, this was done for a fee by women (Kizik 1998: 84) who usually collaborated with others specialising in funeral services, such as a coffin manufacturer. This was a continuation of medieval tradition, when such services were performed by nuns or Beguines (Koslofsky 2000: 95).

Sponges, bowls, combs, razors and other objects used during hygienic procedures were placed in the grave with the dead. It was believed that these items had become contaminated by contact with the corpse, or the dead could later claim their property. The water from the bath was poured in a secluded place, e.g., away from dwellings, under a specific shrub (often elderberry or danewort). This custom was still known in rural areas of Poland in the 20th century. The clothes of the deceased were given away to be washed. Bathing sponges have been found, among others, in the burials of Sophie Charlotte von Hesse-Kassel, Duchess of Mecklenburg from the crypt in St. Nicholas Church in Schwerin, in the parish church of Berlin-Mitte, in the crypt of the Gehler family in Görlitz, in the tomb of the von Saldern family in Bordesholm and the crypt under St Joseph's Church in Hamburg. A razor was excavated from a tomb located in St Paul's Church in Göttingen. Combs were discovered, e.g., in the crypt of Berlin-Mitte and in crypts located under the churches of St Michael and St Joseph in Hamburg. Bowls, most likely serving a bathing function, have been found in Breunsdorf (Ströbl and Vick 2009: 320-321) and the municipal cemetery in Haale an der Saale (Schafberg 2006: 253).

The usually naked corpse was then sewn into the shroud. The illustrations from medieval manuscripts show seams running along and across the fabric, so that the sewn-up shroud resembles a loose sack. It was also practised to wrap bodies tightly in the textile which was then secured with pins, perhaps also fastened with belts and buckles, or in other ways that have left no legible traces today (Gilchrist and Sloane 2005b: 106). In the British Isles the custom of tying shrouds in knots at the head and at the feet of the deceased became customary. In the Middle Ages, the buried body may also have been laid naked in the ground (Wojcieszak 2012: 126). The original presence of shrouds is usually indicated only by the position of the skeleton – the tight attachment of the hands to the body and the joined lower limbs.

The shroud being placed over the naked body was an expression of humility. It is believed that the use of shrouds was introduced in Christian funerals to clearly distinguish them from pre-Christian customs of lavishly dressing and equipping the dead. Reference was thus made to models known from the Bible, such as the burial of Christ or the description of the mortal remains of Lazarus.

In the early Middle Ages, the face of the deceased remained exposed (Ariès 2011: 175), as was done in Antiquity. At that time, the head was covered before burial

with a separate scarf, called the sudarium. Traces of such headscarves have been discovered in 11th and 12th-century burials in the marketplace of Schleswig (Hägg 1997).

Shrouds in the Middle Ages were mostly made of linen and probably also of wool. However, the remains of woollen fabrics in burials are usually interpreted as the relics of deceased's clothing. As linen is characterised by high moisture absorption, bleached or raw was most suitable for burial ceremonies. Usually, the bed linen in which the person died, was used for the shroud. Less commonly fabrics for shrouds were specially purchased. Bodies were also sewn into animal skins. Exceptionally, the dead were buried wrapped in shrouds made of silk. In these cases, linen cloth was sometimes placed underneath the precious outer fabric to prevent it from staining. The dead were also buried on mats of straw or wrapped in tarred textiles (Diefenbach and Sörries 1994: 37).

Shrouds made of sheets of lead folded around the body were also used, available to the wealthiest in Western Europe. Custom of encasing the corpse in lead coffins survived in England and France until the 17th century. Among the upper classes of society, also fabrics impregnated with wax were used which were applied to the body in several layers (Gilchrist and Sloane 2005b: 109; Litten 1991: 40). The latter two types of shrouds are associated with the embalming procedure which was culminated by the application of an airtight, antimicrobial cover that prevented preparation fluids flowing out of the corpse.

The most elaborate funeral practices involved the most prosperous strata of society. Dismemberment and burial of parts of the body in multiple locations was a rare practice. The dismemberment of corpses may have originated in Carolingian times. In Middle Ages the bodies of monarchs, especially German and French, were treated this way. Burial in several places served to balance dynastic and founding duties of the deceased. The burial of the heart or viscera was treated with the same reverence as the burial of the whole body.

Richard the Lionheart's body was buried in three locations, the internal organs were placed in Châlus, the heart was deposited in the Church of Notre-Dame in Rouen and the rest in the Abbey of Fontevraud. The heart was embalmed, wrapped in linen fabric and enclosed in a lead sarcophagus. Analyses carried out in 2013 revealed the presence of pollen grains of myrtle, daisy, mint, pine, oak, poplar, plantain and ladybell. In addition, significant amounts of lead, tin, traces of copper, mercury and antimony[1], lime, olibanum resin and wood creosote (a product of dry wood distillation) were recorded (Charlier *et al.* 2013).

Embalming became more common from the early 14th century onwards (Gilchrist and Sloane 2005b: 80). The medieval process of embalming is as yet hardly recognised. The earliest surviving description of embalming carried out on Polish soil concerns king Sigismund the Old, who died in 1548. The first step involved cutting open the chest and abdomen and removing the viscera. Sometimes the skull was also opened and the brain extracted. Urns containing viscera were immediately buried (Chrościcki 1974: 49). Leaving the internal organs in the corpse would accelerate its decomposition. The body was then washed in solutions of preservative substances e.g.: water with wine, vinegar, salt, herbal decoctions. The interior was filled with herbs, textiles, horsehair or ash. The body was also rubbed with ointments. Traces of pre-burial dissections are sometimes visible on the bodies (Drążkowska 2014: 64-69).

The custom of burying entrails separately became widespread in the 16th century. In the 17th century, burials of hearts were more common among the aristocracy. A container with the remains of the heart of an unknown person was found in the coffin of Bishop Walenty Wężyk from the crypt beneath Przemyśl Cathedral, in southern Poland. In the church of St Joseph in Rennes, north-west France, the coffin of Louise de Quengo, who died in 1656, was discovered. Along with her in the tomb there was a lead urn containing the remains of the heart of her husband Toussaint Perrien (*Le corps d'une noble dame du XVIIe siècle retrouvé en France*, n.d.).

[1] Tin, lead and antimony come from the container in which the heart was stored. According to historical written sources mercury was used for embalming in the past. Pollen from pine, oak, poplar, plantain and ladybell were considered environmental pollutants. From the products used for embalming, there are traces of myrtle, daisy and mint, whose pollenation occurs long before/after spring (the burial took place around 6. April 1199) (Charlier *et al.* 2013).

During the Middle Ages, the lay dead were rarely dressed for the grave, except for the wealthy. Infants were deposited in the ground in their swaddling clothes which were their only attire at the beginning of their lives. The youngest children were also buried in the robes in which they were administered for baptism, as the cloth still contained the chrism and holy water. Baptismal garments were allowed for children who died up to one month after birth, i.e., until the rite of churching of their mothers in the temple (Oosterwijk 2000: 45).

Clergy, more often than lay people, were buried in clothing. Bishops were given a full pontifical vestment. In addition, attributes in the form of a crozier, a chalice, a paten and a ring, were deposited with them in the tomb. The monks would either retain their religious habit or choose to wear a pious shirt (in Polish 'giezło') or hair shirt. Buckles found in the burials of clergymen perhaps testify to the presence of leather belts and footwear. Guillaume Durand, in his 13th-century description of church liturgy in the West, reported that the footwear on the feet of the dead was a sign of their preparation for the Last Judgement (Gilchrist and Sloane 2005b: 87).

Probably some of the clergy were buried in personal clothing. In the burials of the Grand Masters of the Teutonic Order in Kwidzyn Cathedral, in the north of Poland, remains of robes made of silk have been identified, including a mantle made of multicoloured fragments of nine types of fabric of different textures, cut in the shape of diamonds. Despite the fact that the frescoes in the temple show the deceased in the attire specified by the statutes of the order, featuring a white cloak with a cross, the Grand Masters were buried in their private garments (Grupa and Kozłowski (eds.) 2009).

Monarchs and princes were laid to rest in their coronation dress. Royal insignia were sometimes replaced by copies made from less expensive raw materials. Polish king Kazimierz IV Jagiellon was wrapped in a shroud made of brocade fabric. Copies of the crown, orb and sword made from organic materials were placed in his tomb (Hryszko 2010: 62).

In the Middle Ages, the proper preparation of the corpse for burial played an important role because of the belief in bodily resurrection. In order to visibly mark remorse over sins and confirm that the deceased had been absolved of guilt, specific objects were placed in burials.. Letters, crosses or plaques with an inscription identifying the deceased or with the text of an absolution were placed in the graves. The dead were also provided with objects attesting to their piety, such as related to pilgrimage. Medicines, medical paraphernalia and mobility aids are found in graves which may be evidence of practices of 'healing of the soul' (Gilchrist and Sloane 2005b: 87). In Britain, burials of people with stones, ashes or charcoals and even a St James' shell placed in their mouths have been discovered. This was probably an expression of penance for sins committed in speech (Gilchrist and Sloane 2005b: 79).

In the High Middle Ages, however, there was a noticeable shift away from furnishing of burials. Personal items such as pieces of clothing or jewellery are occasionally found in graves. Tools, writing objects and everyday items are also very rare. Any personal items that were placed in the tomb with the deceased were likely placed before sewing the body inside the shroud. Few examples of burials are known containing pilgrim paraphernalia – badges, bells or walking sticks. Papal bulls are also found in elite graves, evidencing the depositing of correspondence in the graves, most likely letters of pardon or concerning other personal privileges (Paszkiewicz 2018: 716-717). Occasionally rosaries are found (Gilchrist and Sloane 2005b: 93-94). Crosses in secular graves reappear in the 15th-16th centuries (Descoeudres 1995: 78).

The presence of coins in graves has not been explained conclusively. Coins were supposed to serve as payment for entering into the afterlife or money needed in the hereafter. They may also have represented a payment for a mass for the soul which the deceased could symbolically contribute on a continuous basis after their death. A similar concept was behind the creation of tombstones with a portrait of the deceased who thus gained the opportunity to attend services after the end of life. This may have been a form of paying the deceased his or her due part of property. In England and France, during healing-magical acts involving the recitation of invocations to saints, small coins were deposited on the body of the sick person which transferred the power of the prayers-incantations into the material realm. Thus, the coins may be another evi-

dence of healing of the soul (Gilchrist and Sloane 2005b: 100-102). Coins in graves are thought to have been the equivalent of the grave offerings of ancient times. The coins, or the metal from which they were made, may also have represented a magical amulet or protection against the return of the deceased in the form of a wraith (Duma 2015: 129). They also ended up in the grave by chance, e.g., with the victims of epidemics buried in a rush.

After the hygienic procedures were completed, the body was laid out on wooden bier, less often in a coffin or in a bed covered with a mat. After a short vigil with the corpse held in the house, it was taken outside. The body was then brought to the church. During the exportation to the temple, the body was always enclosed in a coffin covered with a cloth (Ariès 2011: 176). Lighted candles and bells were carried in a solemn procession of priests, monks, the poor, children from workhouses and hospitals, schools and sometimes members of the confraternities of death. The procession was closed by a coffin on wooden stretchers. The order of the procession was usually specified in the will. For funeral participation, the poor received payment in the form of an alms, a robe or a candle. The mourning procession's passage was announced by the bell (Ariès 2011: 172).

The coffin on a stretcher was brought into the church and was placed at the entrance to the chancel, head facing west, face east, surrounded by a cross and lit candles (Litten 1991: 150). It remained covered with a cloth throughout the service. After the mass, the coffin was sprinkled with holy water and incensed (Litten 1991: 150). Vigils, services and prayers were held according to the *Officium pro Defunctis*. The following morning, after prayers, the place intended for burial was marked and the priest ordained the ground. A sign of a cross was drawn in the soil which marked the length and width of the grave (Litten 1991: 150). The depth was measured by using a benchmark rod (Duma 2015: 19).

This was followed by a mass, during which the gravedigger would dig a pit. The coffin was turned 180 degrees and carried out of the church. On reaching the burial place, the body was again sprinkled with holy water and incensed (Litten 1991: 150). Before being deposited in the ground, the will of the deceased was read publicly.

In the dug-out pit usually stood two individuals who were handed the body wrapped in a shroud. The corpse may have been placed on a board to make this operation easier (Litten 1991: 124). After deposition of the body in the tomb, the priest would place on it a letter or a metal cross with the absolution of sins inscribed. The body was then incensed and sprinkled with holy water a third time. Ashes from the censers were sometimes poured into the tomb. The priest would then begin to bury the pit, with the first sod of earth forming the shape of a cross. All the steps of the rite were accompanied by appropriate psalms and prayers. During the interment, the procession would return to the temple with chants (Litten 1991: 150). After death, masses were celebrated for the departed. The poor were given gifts (Litten 1991: 151) and fasts were held (Koslofsky 2000: 23) for the intent of the salvation of his or her soul.

In the Middle Ages, simple wooden coffins with a rectangular or trapezoidal base were used. Some of the oldest coffins had a gabled lid with triangular gable end. Their form was similar to reliquaries. Medieval coffins bore fittings, possibly also locks or padlocks, comparable to furniture chests (A. Ströbl 2014: 119-120). From the Middle Ages they were sometimes decorated with paintings. Usually during a funeral, the coffin was covered with a cloth with an embroidered cross (Litten 1991: 118; Diefenbach and Sörries 1994: 39). The interior was filled in a variety of ways. Occasionally, coffin linings of plants, grass and cushions under the heads of the dead are reported.

In the 13$^{th}$ and 14$^{th}$ centuries, the previous position of the deceased in grave, with his arms at the sides, was replaced by locating the forearms at the level of the pelvis, waist or chest. The use of coffins slowly spread, but the dead were often still buried directly in the burial pit without a casket (Wojcieszak 2012: 126). This seems to be connected with the material status of the people being buried – a higher fee was required for coffin burials (Gilchrist and Sloane 2005b: 116). Coffins were also rarely used due to overcrowding in church cemeteries. They slowed down the decomposition of bodies which resulted in blocking the space needed for new burials (Weiß 1994: 19).

In addition to the wooden ones, coffins made of metal (lead) and sarcophagi (tumuli) made of stone were used, in which the body was sometimes deposited directly. More

often, however, the stone *tumba* indicated the burial place in a crypt below the church floor. These two types of corpse containers were rather available to people of high social and material status, buried inside the churches.

In Western Europe, a specific type of grave pits were anthropomorphic ones which repeated the outline of the human figure in the soil. Burial pit structures included stone or brick-built tombs with or without a lid or stone, brick, tile, metal or timber enclosures. There usually was a head support or enclosure of stones, bricks or tiles around the skull. The filling of the bottom was made of gravel, sand, lime, ash, charcoal, planks or plants. It is likely that leather or textiles were also used. Burials on wooden bier or boards are sometimes recorded (Gilchrist and Sloane 2005b: 132--145). Burying the body on a plank was considered a sign of lower social position or, in the case of clergy, mortification (Descoeudres 1995: 72).

In the modern period, wooden coffins of varying shapes were used, with the cross section in the form of a polygon, usually hexagonal. In the 18th century, the most common coffins were trapezoidal in shape, with pitched side walls and high lid (Majorek 2013: 72). The most expensive coffins were upholstered with leather and fabrics, such as silk, wool and linen. The edges were secured with tapes to provide additional sealing. Coffins were veneered or upholstered on the outside and even inside (Drążkowska (red.) 2015: 67).

The wood of the caskets was soaked in resins or tar for sealant and preservation (Drążkowska (red.) 2015: 34). The studs were pinned to form a decoration. They were arranged in Christological symbols or Virgin Mary signs, crosses and inscriptions. Plates made of tin or bronze sheeting containing information about the deceased, including their name, birth and death dates, biographical data, personal sigil, coat of arms, symbols of faith, passing, resurrection or signs of social affiliation, were affixed to the coffins. The poorer families were allowed to rent shrouds and coffin signs which had universal decoration (Kizik 2001: 205).

In the modern period, the painted and sculpted decorations of coffins often consisted of floral motifs. These included flowers (most often roses, forget-me-nots), palm branches, wreaths of laurel (Linnebach 1994: 50), oak branches, ivy, thuja, poppies, grape vines, anemones or fruit and ears of grain (A. Ströbl 2014: 106-109). The coffins were decorated with symbols, such as crosses, putti, crowns, symbols of faith and transience. At the end of the modern period, antique motifs – horns of plenty, obelisks, snakes devouring their own tails are more common (A. Ströbl 2014: 104-105). Rhymed epitaphs (Drążkowska (red.) 2015: 70) and quotations from The Holy Bible were also sometimes placed on coffins. The painted decorations sometimes imitated upholstery textiles or tin plaques (Kizik 1998: 81).

During the lavish funeral ceremonies in Poland, a portrait of the deceased on the metal plate was placed on the coffin. Coffin portraits were hung in the church after the funeral ceremony, as a commemorative. Sometimes the portrait was painted directly on the metal wall of the coffin (Grupa 2005: 32-33). Coffins with a hole in the lid cut at the height of the deceased's head were among those rarely used (Drążkowska (red.) 2015: 65). Funeral regulations in many modern cities mandate that the coffin should be covered with a lid and shroud during the ceremony (Kizik 2001: 196). Open coffins, however, were displayed in public places.

Parishes stored the communal coffins which were rented for a fee, used only for transport of the body to the cemetery. As coffins became more accessible to the lower classes in the modern period, the need among the elite to emphasise material disparities intensified. The 16th-17th centuries brought a significant development in the decoration and forms of coffins designed for the wealthiest. In the West, the communal coffins went out of use in the 18th century, with the development of a mass production of funeral accessories (Litten 1991: 86).

The bottoms of the coffins were in many cases lined with material of organic origin: herbs, hay/straw, moss, leaves, needles, twigs, wood shavings, sawdust, feathers (Kizik 1998: 91). The lining was hidden under fabric or left uncovered. In the modern period full mattresses with organic filling were also used (Drążkowska 2005a: 17). Sometimes, the colour of the fabric cover of the bier or wood stretcher was strictly defined according to the age and sex of the deceased. White textiles were to be used at the funerals of maidens and bachelors (Litten 1991: 144).

Besides the standard types of coffins in the form of a wooden casket, other variants of body containers were employed. Coffins in the form of anthropomorphic lead cans are characteristic of England, France and the Netherlands. They were used to enclose embalmed bodies, ensuring that the corpse remained permanently immersed in a preservative liquid. Tree trunk coffins, the lid and chest of which were hollowed out of large wooden logs, were used until as late as the 17th century. Another type is the so-called epidemic coffin which was equipped with a movable bottom or a side wall, by lifting of which the corpse was deposited contactless in the grave (Diefenbach and Sörries 1994: 40).

Coffins in German lands became widespread earliest in the north and west which may be linked to the Reformation. If a community member could not afford a coffin burial, the funeral costs and the purchase of the coffin could be incurred by the community (Diefenbach and Sörries 1994: 39). Coffins were required in the case of crypt burials for hygienic and practical reasons. The spread of coffin burials in the 17th century was certainly related to the wider availability of crypts and burial spaces in churches for lay people (Diefenbach and Sörries 1994: 39).

In England, the Reformation led to the end of the confraternities of death. The communal coffins passed into the possession of the parishes and continued to be used by them in a similar way. For a poor person's funeral, a shroud was usually purchased rather than a chest. In England, the spread of coffin burials came in the mid-17th century, in connection with emergence of funeral companies and an expanding market of casket makers. However, coffins for the deceased from all social and economic groups only became available from the 19th century onwards (Litten 1991: 118).

In the 17th century, the production of cheaper coffins from soft coniferous woods began. The more expensive oak wood was preferred among the more privileged social strata (Linnebach 1994: 47). Hardwoods better met the requirements necessary for burying the dead under churches and chapels. Of other types of hardwood used for coffins, elm, walnut and beech can be listed (Litten 1991: 90). Simple wooden coffins used by the elite were considered an expression of asceticism (Linnebach 1994: 48).

In the 17th century, sarcophagi, in which a wooden coffin was placed, came into use. They may have been made of stone or metal and ornamented with painting decoration (Chrościcki 1974: 50). One sarcophagus may have served during many ceremonies.

The coffins in which the deceased were deposited in crypts were often doubled or even tripled, made of different materials (Litten 1991: 100). In the case of wealthy people, the use of a coffin and outer sarcophagus served yet another function. The metal sarcophagus could be displayed on the parade bed after the inner, more modest coffin with the body, had already been buried. The wooden casket with the body was placed in the sarcophagus only after the ceremony had been completed (Linnebach 1994: 50). The transport of the sarcophagus with coffin containing body inside to the crypt could be too difficult.

The production of caskets was carried out by common carpenters, but for the wealthiest coffins were also made by the most renowned master cabinetmakers (Litten 1991: 99). In the 19th century, mass production of coffins began (Diefenbach and Sörries 1994: 40).

Shroud burials were practised in England until the third quarter of the 17th century (Litten 1991: 57). 17th-century shrouds resembled a robe. Some of them were provided with sleeves, and the face of the deceased was left exposed. The head was covered with a hood or other head covering. Around 1700, shrouds were replaced by a shirt open on the back, with ties at the neck and at the ends of the sleeves (Litten 1991: 79). The uncovering of larger parts of the body forced a transformation in the ways in which the corpse was positioned and also led to a greater emphasis on body aesthetics and decoration. In early modern Poland, corpses were wrapped in white shrouds (Kizik 2001: 194) or mortal shirts (Polish 'giezło', 'czecheł'). Sometimes a shroud was placed over the body in grave clothes (Grupa 2005: 30).

In the 16th-17th centuries in Europe north of the Alps, it was more common to dress the deceased for burial in garments which were made of different types of fabric. In modern graves dress accessories, fragments of fabric, leather, and metal parts of the dress are found, such as buttons, hooks, buckles, clasps or belt fittings. Local legal regulations in towns provided penalties for exaggerated, sumptuous funeral attire, but wealthy families included fines in the cost of the funeral.

Anna Drążkowska divided burial garments into those worn by the deceased during life, those sewn specifically for the funeral and mortuary clothes. Clothing worn during life usually corresponds to the current fashion of the period in which the burial took place. In the lands of Poland, representatives of the elite for coffins chose clothing according to the so-called 'Western fashion' or the patriotic attire of the nobility. Clothes worn during life are usually more carefully made than those prepared only for the coffin. They also bear signs of use, such as abrasions and stains at the elbows and hems.

Sepulchral garments were often only shaped on the body and fastened with pins. Significant numbers of pins are found in early modern cemeteries (Sawicki 2015: 72). Grave clothes were sometimes made from a fabric similar to or the very same textile used for the coffin upholstery or pillow.

The mortuary shirt was a simple linen robe tied at the neck. The grave robe was completed with a headdress – a cap for men and a bonnet for women. Children were always buried with a head covering. Footwear and its elements are often found in early modern burials (Sulkowska-Tuszyńska and Górzyńska 2010: 45).

Sometimes the deceased were buried with clothing ornaments and jewellery. Wreaths and grave crowns are found in the graves of young people. Bodies were decorated with flowers, and bouquets of fresh twigs along with artificial flowers, before the ceremonial presentation. Lutherans were equipped with a prayer or hymn book, Catholics with devotional items such as a rosary, cross, medal, scapular (Grupa 2005: 32), gorget or reliquary. Figurines of saints and pilgrim paraphernalia are found in graves (Descoeudres 1995: 79). In the modern period, coins would be placed in pockets, mouths, hands or placed on eyelids of the dead (Stankiewicz 2015: 14).

Protestant burials contain objects associated with the symbolism of love and fidelity, symbols of the good housewife in the form of belts with keys attached, knives, bells and goldware (Wachowski 2015: 233-238).

The clergy in the early modern period were buried in attire characteristic of their state and function. In the Holy Trinity Church in Strzelno, nuns were laid to rest in habits and veils (Sulkowska-Tuszyńska 2006: 135).

In early modern graves, parts of clothing and personal items such as pipes, spectacles, tools and armament can be found (Sawicki 2015: 60-77). Urban cemeteries contain both richly furnished burials and modest ones, with almost no equipment. Unusual items found in coffins include apothecary vessels and glassware, natural and artificial eggs, brooms and stools. Apothecary vessels containing remains of medicines were found in graves in Thaldorf, Breunsdorf, Halle, Geiseltal and Hassleben. A poison bottle dating to the mid-17$^{th}$ century was discovered in Schwerzau (Schafberg 2006: 254).

A peculiar German custom involved lacing the bodies with ribbons. Because the procedure was applied to deceased children and young women, its protective significance against prematurely dead children and postpartum women is assumed (Linnebach 1994: 60). Women, who died during pregnancy or childbirth, were also equipped for the grave with scissors used to cut off the umbilical cord (Wachowski 2015: 234).

In Hanseatic towns, the house of a deceased person was marked by the hanging of a linen cloth or shroud. This custom originated with an ordinance by the Grand Master of Teutonic Order, Winrich von Kniprode, in the 14$^{th}$ century (Kizik 2001: 190-191). In the modern period, the corpse was displayed on a special bed in the hallway of a tenement, decorated with fabrics and candles, with the furniture covered with washable black paint (Kizik 2001: 193). The houses were decorated by people hired for a fee. In the case of people who died of infectious diseases, a white St Andrew's cross was placed on the facade of the house (Grupa 2005: 30).

Depending on local regulations, the burghers were obliged to bury the deceased between three and five days after death. The burial date was postponed if it occurred on a holiday, to the next working day (Kizik 1998: 71). Typically, efforts were made to postpone the funeral. Time restrictions did not apply to the nobility, representatives of the city patriciate, military officers, so they could show off with lavish, elaborately prepared funerals. After the death of prominent personalities, people of wealth or rulers, the waiting time was longer if the visitors invited to the funeral had travelled from far away or the corpse had to be transported to another location. In exceptional cases, funerals were even postponed for years.


**Fig. 1**. Albert Glöckner, *Coffin portrait of Wilhelm III. von Sachsen-Altenburg who died on the 14th of April 1672*, Zeitz, Museum Castle Moritzburg

The bodies of aristocrats and kings were displayed in decorated chambers or in the palace chapel. In the residence, the corpse was presented on a parade bed (bed of State). During royal funerals, a chapel with a temporary altar was set up in the chamber of the castle, at which the bishops celebrated mass (Rożek 2008: 35). According to the ritual of the French kings from the 15th century onwards, the body was displayed in the funeral chamber, while an empty coffin with the image of the deceased was exhibited in the parade room. After the body was brought into the church, the coffin, urn or portrait was placed on a several-stepped catafalque with a baldachin. Catafalques were erected from around the 12th century. The elaborate architectural form of the catafalque in the modern period is referred to as *castrum doloris* ('castle of sorrows'). *Castrum doloris* may have been decorated with allegorical sculptures, pictorial representations, emblems, coats of arms and symbols. Mass was celebrated at the catafalque every day until the funeral.

The funeral proceedings for bishops of the Latin rite are defined in the *Ceremoniale Episcoporum*. The bishop's body, with a cross in his folded hands rested on a private bed, on a table or carpet, on a mattress filled with straw or wool and covered with black cloth. Torches or candlesticks and chairs were placed around the bishop's body for the people keeping vigil at his side (Drążkowska 2014: 91).

Royal and noble funerals were held particularly lavishly in the 17th century. The celebration of a nobleman's funeral could last several days. During royal funerals in Kraków, the former capital of Poland, there were processions that passed around all the churches in the city. Temporary altars were erected, at which thousands of masses were held. During the ceremonies, a figure on horseback would appear playing the role of the deceased, weapons and symbols of power were broken, and triumphal gates were constructed. The ceremonies were followed by a feast with merry music and fireworks. In between various games, hunts and plays were organised (Chrościcki 1974: 50-54).

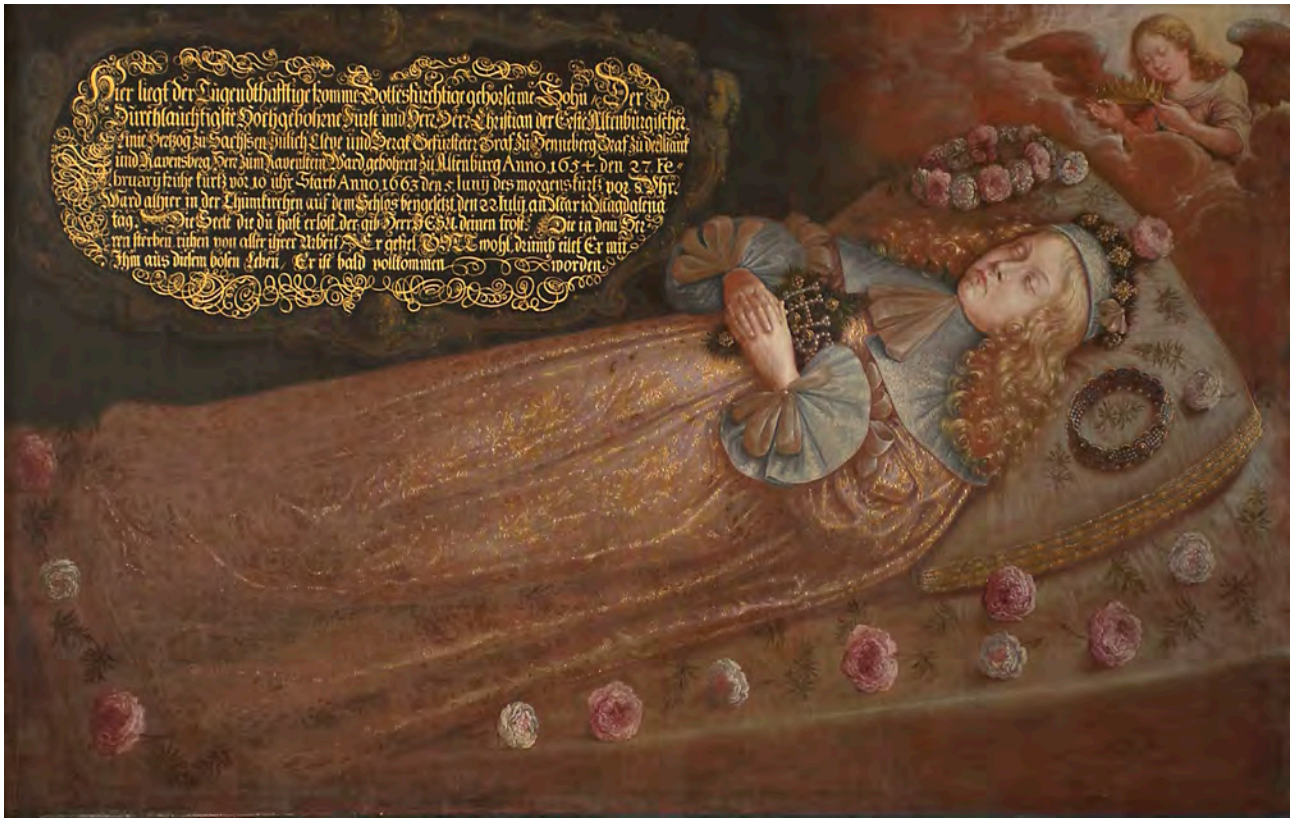


**Fig. 2**. *Posthumous portrait of Prince Christian von Sachsen-Altenburg*, 1663, Residenzschloss Altenburg, crypt in the castle church

**Fig. 3**. *Christian von Sachsen-Altenburg – portrait in funeral oration*, 1663, Residenzschloss Altenburg, currently: Darmstadt, Landes- und Hochschulbibliothek

The transport of the corpse to the burial site depended on the distance between the place of death and the cemetery. In the Middle Ages, corpses were transported to church cemeteries situated close to houses. Later on, the establishment of burial sites outside of urban boundaries necessitated the use of special coffin carrying equipment and wheeled vehicles (Litten 1991: 120).

In the Middle Ages a burial confraternity was active at almost every parish, taking care of the transport and organisation of the procession. In towns, it was obligatory that guild members or delegations from the workshops attended the funerals of guild masters and their family members, journeymen and apprentices. People not belonging to the guild could have a guild funeral for a fee (Kizik 2001: 229).

As soon as the washing of the deceased began, a messenger with invitations to the ceremony was sent (Kizik 2001: 227-228). The messengers invited people to attend the funeral orally or handed out written invitations. The printed invitations were decorated with engravings and provided with literary texts. In Pomeranian (southern Baltic coast

area) villages until the 19th century, people were invited to attend a funeral procession or wake by hitting their gates with sticks (Bonowska 2004: 49-50).

Guild members would gather in front of the deceased's house in anticipation of the priest. Just before setting off, they placed the body in a communal coffin which was later transported to the church (Litten 1991: 124). The parish coffin was usually permanently fitted with pegs to make it easier to carry, in other cases it was placed on a stretcher. The coffin was carried at waist height, less often supported on the shoulders (Litten 1991: 124).

At the head of the procession stepped the clergyman with the cross, followed by the acolytes, an official from the parish or sacristan, the priests, just behind them the coffin, then the guild members in mourning clothes with staffs in their hands. The procession was closed by the family of the deceased and other guests (Litten 1991: 148-150).

In the modern period, bier was introduced into use which enabled transport of the body on it without a coffin (Litten 1991: 127).In a painting kept at the St Janshospitaal Museum in Bruges, a body on a bier is wrapped in straw only (Deforce *et al.* 2015: 602). The corpse on the bier may have been carried by two or four people (Litten 1991: 127). After the dissolution of funeral confraternities, the duty of carrying the corpse fell to the family or servants of the deceased, until the emergence of professional funeral homes in the 17th century (Litten 1991: 128-129).

The persons carrying the body were given a sprig of rosemary which was thrown into the grave at the end (Litten 1991: 129). It could also have been a small bouquet of flowers (Litten 1991: 159) or a fruit. Funeral attendees might be served alcohol before departing (Litten 1991: 144). Small children's coffins were carried without the use of bier or stretchers on the shoulders or head. Coffins of the adults were also carried tied on the back and could be transported by four people on their shoulders. The coffins of the poorer were carried until the 19th century, while the wealthier were sometimes transported by vehicles (Litten 1991: 134).

After the Reformation, almost all necessary pre-burial arrangements were handled by the family, sometimes even including the digging the grave pit (Jonsson 2009: 179). By the end of the 19th century, funeral homes had chapels available where the body was deposited before burial (Litten 1991: 167). The custom of covering the coffin with garlands appeared around 1860 (Litten 1991: 170).

In Germany, at the beginning of the Reformation, any funeral ceremonies were abandoned. Burials took place without processions, the participation of priests and singing (Koslofsky 2000: 92). Martin Luther, however, saw the need for a ceremonial funeral. The ceremonies were not intended, as before, to help the deceased enter paradise, but instead fulfilled important social functions. The focus was on highlighting the biography and achievements of the deceased, bringing comfort to the mourners and the weak in faith, helping in contemplation of the resurrection mystery (Koslofsky 2000: 93). The Protestant funeral reflected above all the deceased's position in the community (Koslofsky 2000: 100)

The Lutherans announced the death by ringing the bells. A second time the bells were rung as a sign that the preparations for the ceremony had been completed, although in some towns this custom was abandoned, considering it as being associated with Roman Catholic funerals (Koslofsky 2000: 96). Before the procession started, the body was displayed with the face uncovered and individual farewells took place. After this brief presentation, the coffin was closed (Litten 1991: 144). The funeral regulations in Protestant cities also attempted to suppress the night vigil by the deceased, as during this rite the Roman Catholics held an intercessory prayer for the soul (Koslofsky 2000: 95).

Protestant funerals were attended by pupils under the supervision of a teacher who joined the procession with singing. The number of bells that were rung, priests, pupils and guests attending, depended on the status of the deceased. The order in which the mourners were expected to follow the coffin varied according to their age, social rank and gender(Kizik 2001: 230). The mourners should be lined up in pairs. The number of people taking part in the procession was usually determined by the local law regulations. If the mourners were few in number, the poor were invited (Kizik 2001: 232). The procession was led by a so-called marshal with a staff. Only men were allowed to carry the body. The procession was usually closed by women, but in Bremen and Hamburg, for example, they were forbidden to take part in the funerals (Kizik 2001: 234).

The funeral sermon became part of the Lutheran tra-

dition in the late 16th century. Sermon texts contained moral and doctrinal instructions, a praise of the deceased's life, his glorious deeds and the origin story of his family (Koslofsky 2000: 110). The sermons were sometimes published in print.

The Lutheran ceremony should include the ringing of bells, a procession, singing and burial in the cemetery (Koslofsky 2000: 94-95). In England during the Reformation, a new liturgy came into use (Litten 1991: 151-153). Modesty was required, therefore the procession took place without priests or bells and consisted of mourners dressed in simple black robes (Litten 1991: 159). The priest met the procession at the church or cemetery gate, rather than at the home of the dying. Psalms 39 and 90 and the *Letter to the Corinthians* were read in the church, then the body was taken to the burial place. There, prayers were recited over the grave (Litten 1991: 161).

In funeral regulations in urban areas, the hour of burial was strictly defined. Usually, funerals were held in the morning, so that students from schools would have a chance to attend the ceremony. In the second half of the 17th century, the nobility began to insist on night funerals, previously reserved for the dishonourable. The specific funeral schedule of the cities made it impossible to organise a longer ceremony in the daytime. Secular funeral orations and poetic works were an important element of night funerals, the presentation of which was not possible during the usual funerals due to time constraints (Koslofsky 2000: 133; Grupa 2005: 33). In case of night funerals, clergy participation was limited to a minimum (Koslofsky 2000: 133). The religious ceremony stages were replaced by singing and secular orations (Koslofsky 2000: 137). The night funeral provided an opportunity to display extravagance and heighten the drama of the event.

The raising popularity of night funerals and the organisation of lavish ceremonies coincides with a time when material differences between representatives of various classes began to blur. The elite's desire to distinguish themselves led to the development of increasingly unusual funerals that was full of contrasts and surprising concepts in accordance with a Baroque aesthetic. The daytime burial was an event intended for the entire religious community, while the night time allowed to enjoy the luxury of privacy. This trend included representatives of all states desiring ennoblement. Around 1700, night funerals began to be organised also by the burghers (Koslofsky 2000: 141).

The denial of Christian burial became a tool for disciplining stubborn sinners. The dishonourable funeral took place in silence, outside the cemetery, without priests or mourners. The pauper's funeral was also an embarrassing event, with the cost being borne by the community (Koslofsky 2000: 102).

Cemeteries were initially located in towns and villages usually next to parish churches, chapels and also within monasteries (Sulkowska-Tuszyńska and Górzyńska 2010: 39). The first Christians wanted to be buried near the relics and graves of saints, hence the establishment of cemeteries around places of worship (Koslofsky 2000: 40).

The cemetery area was separated by a wall, fence or ditch (Duma 2015: 17). The enclosure not only protected the graves from destruction, but thereby established an area within which the right of asylum was valid. It also served to separate the dead who, according to medieval beliefs, remained spiritually and physically present in the community. From the 15th century onwards, cemetery gates were fitted with bars to prevent animal intrusion (Steeger 2003: 18).

Cemeteries were areas of greenery, with free-roaming paths and crosses that did not, though, indicate graves. In the early Middle Ages, fruit trees were planted in cemeteries. The way of marking a burial above ground is unknown. Likely, the graves were most often not marked permanently (Duma 2015: 23). It is possible that a small mound was raised over the grave (Descoeudres 1995: 76). In the medieval depictions of cemeteries, wooden crosses are sometimes visible. They may also have been made of stone. Over time large slabs of stone began to be placed on graves for their protection from animals (Duma 2015: 17).

As construction free and unplanted green areas located in city centres, cemeteries became places for recreation, business, fairs and courts. Cemeteries within the churches were characterised by a hierarchical arrangement. The most favourable burial place outside the church was the external area around the chancel wall. The highest concentration of graves is usually recorded by its eastern wall. The part of the cemetery north of the temple was used

for burials at the very latest (Sulkowska-Tuszyńska and Górzyńska 2010: 44). The area near the western portal as the place most distant from the altar was also intended for less prestigious graves (Descoeudres 1995: 73).

The layout of the burials followed the arrangement of the church, and is referred to as row-like (Sulkowska-Tuszyńska 2006: 136). Bodies were laid to the ground on their backs, with the arms placed along the body or crossed at the chest or pelvic level, the head usually facing west, with the face turned towards the east. This allowed the deceased to participate in the religious services by looking at the altar. There are also graves in which the dead were placed in unusual positions.

In cemeteries, distinct areas called *locus separatum* were created for people excluded from the community (Duma 2015: 23). These were to be marked in space (Stankiewicz 2015: 14), sometimes even fenced off. In most cemeteries, there was traditionally a place where dishonourable or strangers whose burial could not be taken care of by the family, were laid to rest. Pits for bones collected during the cleaning of old graves were also located there (Duma 2015: 24). These may have been situated in the far end of the cemetery, close to the wall (Sulkowska-Tuszyńska 2006: 143). The people excluded from the community could also find their final resting place in the monastery cloisters (Sulkowska-Tuszyńska and Górzyńska 2010: 51).

Until the beginning of the 16th century, the burial of unbaptised children in consecrated ground was not permitted in Germany (Duma 2015: 17). When it became possible, they were buried on the outskirts of cemeteries during silent ceremonies (Sulkowska-Tuszyńska 2006: 143). There was also a secluded burial space for women who died during pregnancy, childbirth or postpartum (Sulkowska-Tuszyńska and Górzyńska 2010: 45). In Wrocław, the city council in 1528 issued an order to avoid burying women, who died postpartum, near frequented cemetery alleys (Stankiewicz 2015: 14).

Overcrowding of church cemeteries resulted in the destruction of older graves, while digging the new ones. In the Middle Ages, mortuaries began to be erected where bones from dug-up burials were deposited (Sulkowska-Tuszyńska and Górzyńska 2010: 46; Duma 2015: 19-20). The remains exhumed during cemetery clearance were also deposited there. The excavated bones were sometimes buried in common pits or placed in new graves, e.g., on the lid of a coffin (Sulkowska-Tuszyńska and Górzyńska 2010: 49). Based on medieval artistic depictions, bones were also stored in the attics of churches and in the arcades of the walls surrounding cemeteries.

The tombs of clergy and rulers in the Middle Ages were situated inside the churches. From the late Middle Ages, church burials of the laity who could afford it, such as church benefactors, knights, burghers, craftsmen and merchants, became more common (Majorek 2013: 71). When individual craftsmen would not be able to pay for a church burial, the cost of such could be paid by the guild (Steeger 2003: 20). From the late Middle Ages onwards, a simple earthen grave could be regarded as a sign of an inferior position in the community (Descoeudres 1995: 73).

The most prestigious burial location within the church walls was the chancel. Not only the proximity of the altar, but also the possibility of constant remembrance of the deceased by the priests celebrating services, induced people to seek burial in this location. If burial stone plates were placed in the ambulatory, the dead could also receive prayers from pilgrims. Slightly cheaper was the space in the aisle which was also passed by pilgrims and worshippers entering the church (Litten 1991: 200-201). In the modern period, it was still believed that the location of the tomb near the altar allowed the deceased to pray and take part in services after death (Duma 2015: 22).

The oldest vaults of monarchs, high-ranking clergy, founders and benefactors were located in the western part of the churches (Sulkowska-Tuszyńska 2006: 136). Crypts below the floor level of the churches and burial chapels next to the temples were being built. In Germany, large, free-standing crypts were being erected in cemeteries in the 16th-17th centuries. From the 18th century, municipal crypts began to be organised (Ströbl and Vick 2011, 97).

The creation of private crypts is linked to the Reformation. After the dissolution of the monasteries, there were no longer any churches in which burial was considered prestigious or more promising for salvation. Consequently, the nobility began to choose parish churches as their burial sites (Litten 1991: 207). Usually, family crypts were located under the naves or private chapels. Crypts were also the

burial place of the middle class (Litten 1991: 212). The walled rooms were finished using a variety of materials. Some had windows, ventilation or an opening in the floor for run-off products of decomposition. In crypts, coffins were stacked on top of each other, or placed in rows on specially built shelves or in niches (Litten 1991: 210).

Since the Middle Ages, tombstones of wealthy individuals were placed in churches. Initially these were stone monuments with a representation of a reclining figure. From the 16th century, the Italian type of tombstones with a semi-recumbent figure, became popular in Poland. The 17th century is characterised by the use of many compositional solutions. The dead were usually shown as praying, blessing or asleep (Karpowicz 1988: 458-459). The stylistic development of tombstones was influenced by the transformation of the funeral ceremony. The appearance of elite gravestone monuments sometimes copied the design of the *castrum doloris* (Karpowicz 1988: 460). The 18th century in sepulchral art is associated with a rejection of a convention in favour of surprising concepts.

The sepulchral plates inside churches were not necessarily linked to the place where the body was buried. They were located in the floor, and over time they began to be mounted on the walls. Epitaphs commemorating the deceased and post-mortem portraits were hung in the churches. Wreaths, coffin portraits and mourning flags with a painted image of the deceased, also served a commemorative function after the ceremony (Stankiewicz 2015: 41). Wreaths were displayed on walls and emporiums in special boxes, on supports or decorative cushions.

At the end of the 15th century, new burial sites outside the city walls began to be established or existing ones were enlarged. Until then, mass graves were set up outside the walls on an ad hoc basis, e.g., for victims of epidemics. Bodies of people excluded from the community – strangers, suicides, convicts, were usually deposited there. Burials outside the walls did not involve payment, so cemeteries located outside the cities soon began being identified as burial places for the poor (Duma 2015: 21).

Due to population growth towards the end of the Middle Ages, cemeteries next to churches in towns began to lack space for new burials. Due to the increasingly elaborate forms of funeral processions, it became more convenient to hold ceremonies outside the city walls. Hygienic issues were also raised. Overcrowded cemeteries were considered a potential source of epidemics. The clergy were against the change, fearing a reduction in revenue. Also opposed were parishioners who were attached to the places where their family members had been buried for centuries (Koslofsky 2000: 43).

The practice of establishing cemeteries outside the walls was earliest to appear in towns where Protestants predominated. Breaking the monopoly of the Church was one of the aims of the religious reformers. Martin Luther advocated the establishment of necropolises outside city walls. For Luther, too, the primary motivation was their harmful effects on health.

In 1527, Martin Luther published the text *Ob man vor dem Sterben fliehen solle*. There, he recommended burials outside the city for economic reasons and to emphasise one's piety and integrity. He believed that the burial place should be quiet and encourage reflection on death, the Last Judgement and the Resurrection (Koslofsky 2000: 46-47).

In 1772, by decrees of Emperor Joseph II., church cemeteries in the cities of the Austro-Hungarian Empire were closed (Diefenbach and Sörries 1994: 42). The year 1776 marked the closure of all church cemeteries in Prussia, by edict of Emperor Friedrich III. Wilhelm. The process of closing old and creating new burial grounds on the outskirts of living areas was a long-term one. In England, the emergence of similar prohibitions lasted from 1850-1862 (Litten 1991: 134).

# 3. PLANTS AS DECORATION – FLOWERS, BRANCHES, BOUQUETS, WREATHS AND CROWNS

## 3.1. Natural and artificial flowers

Funerary customs and ceremonies to commemorate the dead have for centuries involved the use of flowers. A Neanderthal burial in the Shanidar cave in Iraq is sometimes considered to be the oldest manifestation of mourning rituals combined with the placement of flowers with the deceased (Girard 1986: 143, 144). Flowers played an important role in funeral ceremonies and celebrations in honour of the dead by people from ancient cultures in the Mediterranean basin. In ancient Egypt, bouquets of lotus flowers were placed in graves. In Greece and Rome, wreaths of flowers were worn during ceremonies and were used to decorate statues, altars and tombs (Cirlot 2001: 100).

Cut flowers probably did not appear as an independent ornament in the Middle Ages and do not appear in iconography until the end of this era (Goody 1993: 185, 186). In the modern period, natural and artificial flowers were used to decorate the bodies of the dead which were displayed to the public before burial.

The remains of natural flowers serving as independent decorations are difficult to identify in the archaeological material. Fragments found on robes, cushions or in the coffin linings may come from both cut flowers placed on the body of the deceased and other grave furnishings. The use of this type of decoration from natural plants is suggested by post-mortem portraits and by the remains of artificial flowers placed independently in burials which could be sometimes used instead of the natural ones. The set of plants featured in the visual representations included cultivated flowers which fall within the range of the most prevalent symbols in European culture. These include, above all, plants known through the literature derived from the heritage of Greco-Roman Antiquity and the Holy Bible. Among the plants whose remains have been excavated from graves using archaeological methods, on the other hand, there are numerous herbs that have visually attractive flowers, but were not represented in sepulchral art.

The range of species that formerly fell under the term 'flower' may have differed from that of today. A flower according to the botanical definition is a shortened shoot serving the sexual reproduction of plants. A flower as defined by biology is a broader term than in common parlance. Among flower-producing plants in different cultures, a distinction is made between plants grown for decoration and those that are edible, utilitarian and have other purposes. When describing a funeral ceremony in the past, it is possible to identify 'ornamental' flowers such as roses, anemones, carnations, lilies, tulips and other flowers in a biological, but perhaps not in a cultural sense.

Posthumous portraits, although not free from idealisation, can be considered a useful source of information on how corpses were decorated before burial. A good example is the post-mortem portrait of Caspar von Uchtenhagen, who died in 1603 (Cat. H35, Fig. 4). His coffin, located

in the parish church of Bad Freienwalde in Brandenburg, was opened in the 18th century. According to the account of those events, the young Caspar looked in the coffin just as portrayed in the painting which is kept inside the same church (Fontane 1959: 76-90). The portrait presents the boy in ceremonial white robes, resting in a richly padded casket. Arranged over his body are rosebuds and sprigs of herbs which, based on the leaves, can be identified as rosemary or myrtle. A wreath composed of leaves and small pink flowers – probably rosemary, is shown on the boy's head. In the child's right hand is a rose[1].

To some extent, the choice between natural and artificial plants was determined by the season in which the funeral took place. However, artificial and natural flowers were sometimes joined in a single burial. Dried flowers were also presumably used. Characteristic is also the use of only parts of natural plants in combination with artificial flowers. In the portrait kept at Rysum Castle (Cat. H112), the deceased child rests on a cushion sprinkled with laurel leaves, conifer twigs, a few red roses and carnations. In his folded hands is an artificial flower of red and white colour, and on his head is a green wreath with a bicolour amulet.

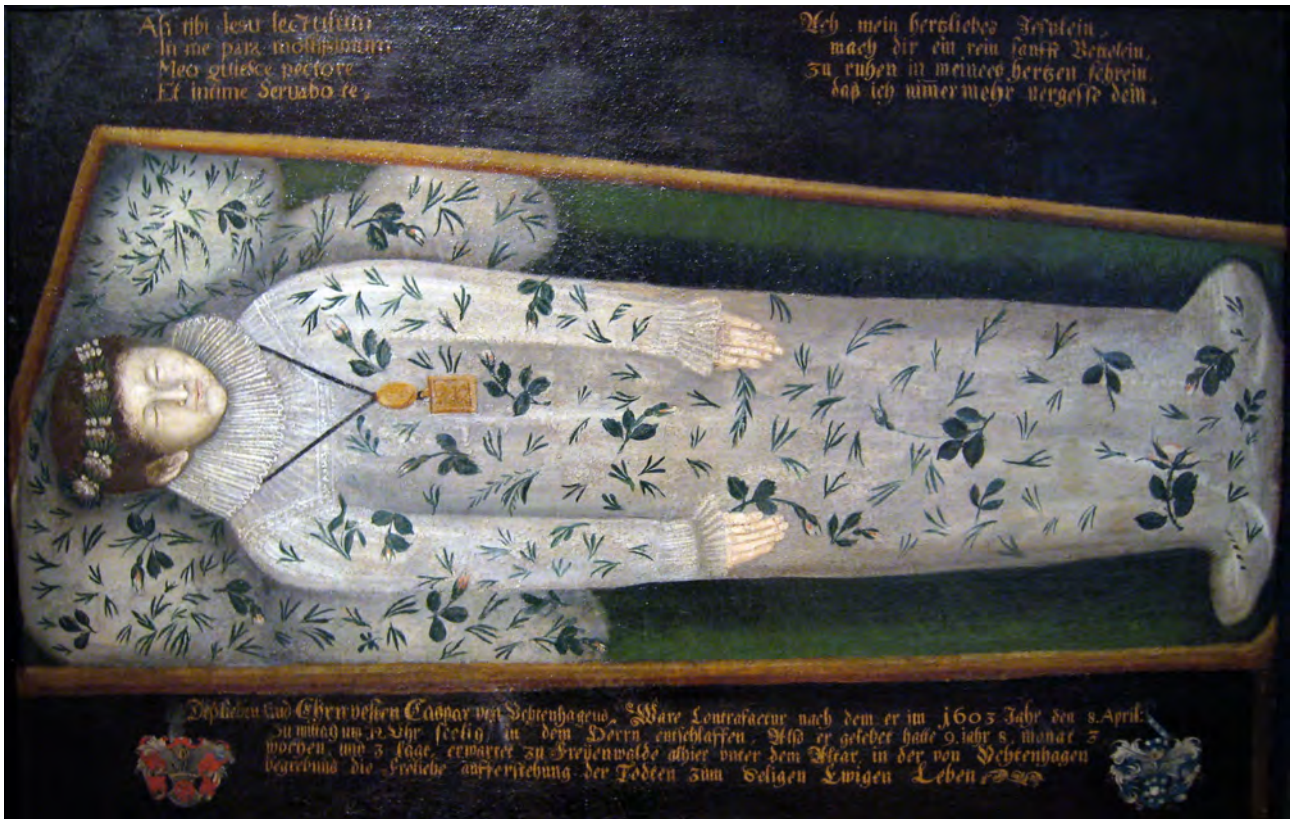


**Fig. 4**. *Representation of the body of Caspar von Uchtenhagen who died in 1603, in a coffin*, Bad Freienwalde, St Nicholas church

The opulence of the decorations led many cities to pass sumptuary laws regulating among other issues, also the selection of flowers for the coffin. In the second half of the 17th century in Gdańsk, sprinkling the bodies of the deceased with flowers was forbidden, except for adult, unmarried women. Only fresh seasonal flowers which were widely regarded as more modest than artificial ones, were considered acceptable (Kizik 2001: 201).

Natural and artificial flowers were strewn over the body of a child found in the crypt of the Church of the Name of the Blessed Virgin Mary in Szczuczyn (Cat. J204; Grupa *et al.* 2013: 105). Artificial flowers may have been sewn onto clothing or fabric covering the body. An example of such a coffin arrangement is known from the crypt under the church in Sura, Sweden (Cat. N21). In Gdańsk, flower buds provided decoration for the interior of the coffin (Cat. J241), while in Gniew they were arranged along the length of the deceased child's robe (Cat. J244). In some regions of

[1] The plants with which Caspar's body was covered have a decorative value, emit a strong fragrance, and are also associated with marital symbolism.

Northern and Western Europe, artificial flowers for funerals were prepared by members of the family or community who were thus bidding farewell to the deceased member. This event was initiated, according to tradition, by the godmother of the deceased. Usually, remnants of everyday fabrics and worn-out clothing were used to make the flowers (Lipkin *et al.* 2020: 219). There were also specialised workshops in towns and monasteries (Lippok 2007: 257).

Artificial flowers may have been modelled on species existing in nature, but in most cases, it is not possible to determine their actual prototype due to their poor state of preservation and the lack of distinctive features that would allow diagnosis. Equally, on tombstones, the most common image is an archetypal representation of an unspecified flower. A slight hint is provided by the colour of the textile petals; however, textiles are rarely able to survive in a grave. In the burial of a child in St John's Church in Gdańsk (Cat. J241), flowers made from paper were discovered. They resembled a white lily (*Lilium candidum*, Fig. 5) and a dog rose (*Rosa canina*, Fig. 6). Blue flowers made of textiles were also found there, imitating the common chicory (*Cichorium intybus* L.) or cornflower (*Centaurea cyanus* L.). The flowers were attached to the inside of the coffin and placed on the body of the deceased (Trawicka 2010: 37-39). Artificial flowers resembling white lilies, dog roses, forget-me-nots or violets, and carnations were discovered in the burial of a young child in the northern crypt under the chapel of St Catherine in the church of St Nicholas in Gniew (Cat. J244). In another of the burials from this church, flowers reminiscent of tulips or carnations were preserved (Cat. J242). In a burial of 3-years old Antonina Bronisława Zaolzicka from Radzyń Podlaski, who died in 1838, a red staining of the skull might indicate the presence of unpreserved wreath made of artificial flowers. Such flowers fixed to iron stems were found in girl's coffin (Dabralet *et al.* 2022, 95).

The blue flowers were also depicted on painted tombstones. On a gravestone preserved in Żelowice, a young girl, Margareth von Schindel (Cat. J99) who died in 1601, holds in her hand a bouquet made of blue coloured flowers, the species of which cannot be identified (cornflowers? violets? forget-me-nots?) (Stankiewicz 2015: 99).

It seems that the loose placement of flowers on the body was appropriate for the funerals of children and young people. The flowers and sprigs of plants that appear in representations of women or men who have died at a mature age are usually arranged in the form of a floral decoration of a cross, garland or wreath (Cat. H5, H7, H150, J274, Figs. 6, 7, 8, 14, 29), although various forms of organised decoration also appear on portraits of dead children. Cut flowers were also used to decorate the parade bed and bedding, on which the body was presented (Cat. A1, H4, H9, H151, H166, H169, H170, H171, O1, Figs. 9, 13, 26).


**Fig. 5**. White lily (*Lilium candidum* L.)

Among the flowers most frequently depicted in sepulchral art in the early modern period was the rose. In archaeological research, the remains of natural cultivated roses used as independent decorations have not yet been

reported in burials (or these finds have not been published). Artificial roses made of wire, leather, textiles or paper have been found in burial crowns and wreaths preserved in Germany[2]. However, they are mainly traced in more recent artefacts. Rose remains have been identified in the filling of pillows or mattresses found in a church in Brahe in Sweden, Visingsö (Cat. N8; Tagesson 2015: 30) and in the Church of Our Saviour in Copenhagen (Cat. C17, C18).


**Fig. 6**. Dog rose (*Rosa canina* L.)

The rose flower was depicted on tombstone representations on the heads and in the hands of the dead, as a symbol of the material world passing away. The ancient tradition of sacrificing roses to the dead continued into the Middle Ages. A wreath of wild roses was found in the monastery church of Marienmünster on the chest of a bishop who died in 1136 or 1137 (Cat. H128). The strong symbolic status of the rose in the early modern period may also have contributed to its more frequent appearance in sepulchral images.

In the culture of the early modern Netherlands, rose symbolised the impermanence of human life. It also functioned as a symbol of carnality, with which are linked sensual love and the pain of desire (Zasławska 2002: 168-169).

In a positive meanig, it became a sign of innocence. In Europe north of the Alps, in the modern period, it was often depicted on the tombstones of people who had ended their lives at a young age. It was also used to represent the deceased person. In German tombstone inscriptions, deceased girls were sometimes referred to as 'roses' (Stankiewicz 2015: 34).


**Fig. 7**. Emblem *Ogni fiore/ al fin perde l'odore – Every flower at the end loses its fragrance*, in: Jacob Cats, *Spiegel van den Ouden ende Nieuwe Tijd*

The rose flower is most often found in emblems exploring the motif of the passing of temporal beauty. An emblem by Jacob Cats featuring a scene in which an elderly woman hands a withering rose blossom to a young woman (Fig. 7) was accompanied by the motto: "Ogni fiore/ al fin perde l'odore" – "Every flower at the end loses its fragrance" (Rotelband 1712: 546)[3].

[2] Roses were used much more frequently in the 19th-20th century as parts of wreaths commemorating fallen soldiers.

[3] Own translation.

The deceased child in the 1658 portrait kept in the Rubenshuis Museum in Antwerp holds a branch with a drooping rose bud in his left hand, while in his right a sprig of laurel is triumphantly clasped (Cat. G14, Fig. 8). A wilting rose blossom with falling petals is grasped in her left hand by Sophia Juliana von Bibra, who died in 1690, on her gravestone (Cat. H65, Fig. 9). In the background, on both sides of the girl, tall tulips grow which similarly to roses are known for rapidly losing freshness. Dorothea Maria, the Duchess of Sachsen-Zeitz who died on 11th June 1675 at the age of 33 (Cat. H151, Fig. 10), was depicted in the portrait in an open coffin, sprinkled with light purple rose flowers. A rose flower is also found in the woman's folded hands.

**Fig. 8**. Mathijs van den Bergh, *Little boy on his deathbed*, 1658, Alkmaar (?), currently: Antwerp, Rubenshuis

The tombstone of Anna Maria Schönaich (Cat. J173) from Bytom Odrzański, dated 1696, depicts a fully narrative scene, in which a girl reaches for a flower from a rose bush, while a hand extends from the clouds and pulls her by the hair to heaven. The inscription explaining the meaning of the image includes both a comparison of the young person to the flower and a belief in the short-lived nature of material beauty:

> „Besser Zeitig angebrochen
> als verwelckt früh und verrochen
> Jesu! Jesu hielfst Du mir
> bald sein glücklich hin zu Dir"[4].

[4] "It is better to be plucked young / than to die withered and old. / Jesus! Jesus, help me / so that [I can] go happily to you" (Stankiewicz 2015: 98).

**Fig. 9**. *Tombstone of Sophia Juliana von Bibra*, 1690, Bibra, Evangelical church

In the modern period, allegorical portraits of young women dressed as the goddess of spring and flowers – Flora, became fashionable. A tombstone from Bytom Odrzański and possibly a burial from St John's Church in Gdańsk (Cat. J241), can be assumed to be linked to this aesthetic trend. Archaeological excavations of the burials of the Schönaich family in Bytom Odrzański have also resulted in the discovery of artificial flowers employed as grave cushion decorations (Grupa 2015: 51).

The attributes of Flora were roses and lilies. Young girls were shown surrounded by flowers, wearing wreaths on their heads, holding a rose flower or plucking one from a bush. Lech Brusewicz, in the catalogue for an exhibition of Dutch paintings in Warsaw National Museum, analysing a painting by Gerard van Honthorst, *Portrait of Maria van Nassau-Oranje as Goddess Flora* from around 1653 (Fig. 11), quotes a claim by Carel van Mander. This

17th-century painter and art theoretician believed that Flora reminds mortals of the necessity of enjoying their youth, because: "old roses are known only by their thorns" (Brusewicz 1981: 74).

**Fig. 10.** Christian Schäffer, *Dorothea Maria von Sachsen-Zeitz who died on the 11th of June 1675*, Zeitz, Museum Castle Moritzburg

**Fig. 11.** Gerard van Honthorst (workshop), *Portrait of Maria van Nassau-Oranje as the goddess Flora*, after 1653, Olsztyn, Museum of Warmia and Masuria

Under natural conditions, the flowering period of roses was very short and did not occur every year. Artists painting floral bouquets from nature were sometimes unable to obtain roses of the chosen species or of the desired colour, forcing them to postpone their work until the following year (Zasławska 2002: 161). The desiccation of roses probably did not have satisfactory results due to the fact that the flowers lost their distinctive features – colour, fragrance and sometimes volume. The perishable flower was often depicted in still lifes illustrating the idea of futility.

Besides its participation in *vanitas* symbolism which developed notably north of the Alps, meanings of the rose, rooted in ancient mythology, the Holy Bible and the Christian Middle Ages, have been still valid in the modern period.

Roses accompanied the representations of mythological figures. They adorned images of the goddess of love – Aphrodite/Venus. Rose wreaths were depicted on the heads of the goddess Flora and the muse of dance Terpsichore. The ancient connection between flowers and mourning, especially those of a red colour, is retained in the story of Adonis being torn apart by a boar, out of whose blood roses (or anemones) sprouted.

Early Christianity adapted ancient iconographic motifs, transforming the rose into a symbol of the Virgin Mary. In Catholic art, roses became attributes of the Virgin Mary and Christ (Forstner 1990: 191-193). They symbolised the love, mercy, beauty, virtues and purity of Mary, who was described as a rose without thorns (Forstner 1990: 153; Michniewska 2014: 56)[5], the Annunciation (Zasławska 2002: 173-174), and were also symbols of the Passion, with five petals representing the five wounds of Christ[6] (Zasławska 2002: 175). The comparison of the rose or lily flowers to Mary and Christ occurs in some of the oldest polish texts from 14th-early 15th century (Nowakowska 2001: 20).

For Christians, white flowers signified virginity, while red flowers stood for love. By association with blood, they were related to Christ's Passion and Mary's co-suffering (Michniewska 2014: 57). Red flowers, especially five-petalled flowers, were also adopted as a symbol of martyrs.

[5] "A rose without thorns" by St Ambrose – roses before the fall of Adam and Eve lacked thorns (Michniewska 2014: 56).

[6] The comparison by St Bernard and St Peter of Capua.

Roses in portraits of deceased nuns are usually a reference to specific Christian virtues. The rose, as a symbol of both the virtues of the deceased and the transience, is depicted in the posthumous portrait of a nun from the Order of Poor Clares in Trnava, Catharina Margaritha Fregách de Ghyms (Cat. L4), who died in 1750 (Bieńko de Peralta and Kubiak 2016: 15). The nun's body was decorated with cut roses of a light colour. Upon the woman's head is a wreath, on either side of her head, on a silk cushion, two floral bouquets have been placed, and a third one below the hidden hands folded on her abdomen. To the right of the painting, the artist has inserted a small still life composed of symbols of transience: an overturned hourglass, a skull, a broken candle and a rose with its petals falling.

Flowers also adorn the body of Beata Konstancja (Konstancja née Myszkowska Bużeńska) in a painting originating from the Carmelite convent at the Church of St Martin in Kraków (Cat. J19). The nun who died on 14 May 1627, has been exhumed, and her mortal remains have been observed not to decompose. The portrait depicts Konstancja on a catafalque before the funeral, or after the body has been retrieved from its burial place, dressed and ceremonially displayed for adoration in the church (Dziubkowa 1996; Bieńko de Peralta and Kubiak 2016: 28).

In the Middle Ages, the flowers belonging to other species, such as hollyhock (*Alcea rosea* L.), marsh mallow (*Althaea officinalis* L.), or the peony (*Paeonia* sp.) were considered roses (Michniewska 2014: 58). Marcin of Urzędów in his *Polish Herbarium* listed three species of roses – a red one called the 'Paradise' rose, a white rose and a field rose, with five-petaled flowers. The white rose was only supposed to be suitable for wreaths. The scholar's claim that white roses are like a dead man, while red represent the living, is somewhat enigmatic (Marcin of Urzędów 1595: 266). In Gothic paintings, the most common roses depicted were those with a multiplied number of petals, belonging to cultivated plants. Wild plants, on the other hand, in artistic representations usually had only five petals each (Michniewska 2014: 56). The six- or eight-petalled rosette appeared on everyday objects, as a popular ornament, a legal mark and a heraldic charge.

The five-petalled white rose with a black cross, presented on a blue background in a golden border, was taken by Martin Luther as the emblem of the Reformation. On Protestant tombstones, the rose can symbolise the confession that the deceased belonged to (Stankiewicz 2015: 34).

Equally as important as the rose, the lily flower, and in particular the white lily (*Lilium candidum*, Fig. 5), is one of the most significant symbols of the Virgin Mary. The white lily is native to the Middle East. It has probably been cultivated since Antiquity and was associated with royal symbolism (Forstner 1990: 187-188). Depictions of lily flowers can be seen in Minoan Frescoes and Assyrian reliefs. The plant was spread in the Middle Ages by the Crusaders, who brought its bulbs to Europe (Szczepanowicz 2013: 143). Fuchs, in his herbarium, distinguished between the cultivated white lily and the orange lily (*Lilium bulbiferum* L.), with golden-red calyxes, which in Northern Europe was the only one occurring wild (Fuchs 2016: 205-206). The white lily symbolised innocence and purity of soul and body. A reason for its association with virginity, among others, is that the white lily does not set seed in wild (Szczepanowicz 2013: 144). The phrase: "a lily in the midst of thorns" from the *Song of Songs* (So. 2:2) alludes to the natural habitat of these flowers. The lily from the Song of Songs was identified with Mary who was surrounded by sinful mankind. In another passage in the text, the lily symbolises the bridegroom, or Christ (Forstner 1990: 187-189).

Lilies in the Middle Ages were shown in scenes of the Annunciation, as a foreshadowing of Christ's birth, his innocence and hidden virtuous nature. In Central European paintings from the 15-early 16$^{th}$ centuries, in religious scenes, the more locally encountered lily of the valley (Convallaria majalis L., Fig. 12), appears as a substitute for the lily. The name of the plant, which in medieval Latin was *Lilium convalium*, comes from the synonymising of the lily of the valley with the "lily of the valleys" from the *Song of Songs* ("Ego flos campi et lilium convalium", So. 2:1) (Michniewska 2014: 76-77). Since it contains glycosides, in the early modern period, it was used for medicinal purposes, especially to regulate the functioning of the heart (Marcin of Urzędów 1595: 190). On late medieval portraits, the lily of the valley in the hand was a symbol of the physician.


**Fig. 12.** Lily of the valley (*Convallaria majalis* L.)

The chief floral symbol of the *Songs* — the lily, was formerly equated with similar-looking flowers: narcissi, hyacinths, irises, lily of the valley and even crocuses. Doubts about the plant's systematics are not resolved by compendia and modern herbaria, in which these flowers appear under many names and are often included in a single species.

A narcissus (Fig. 13) by Pliny and Dioscorides was included in the category of lilies (Marcin of Urzędów 1595: 217).

A substitute for the lily in the Middle Ages was also the yellow iris (*Iris pseudacrocus*). The heraldic lily (in French 'fleur-de-lis') is in fact a representation of the yellow iris. It is likely that the flowers described in the Bible as lilies should also be identified with irises. The remains of yellow irises have been found in Gdańsk, in the north of Poland, in archaeological strata dated to the 12th-14th centuries (Badura 2011: Tab. 25). Yellow and black dye were extracted from the flowers and rhizomes of irises. Similar as lily and lily of the valley, iris is also one of the plants that can cause poisoning or irritation. Lilies, lilies of the valley and irises were cultivated in the Middle Ages as ornamental plants. These flowers usually grew in so-called flower meadows, i.e., areas of green grass covered with flowers, which were a characteristic for medieval gardens (Michniewska 2014: 45).


**Fig. 13.** *Narcissus poeticus* L.

There is quite a lot of inconsistency among the names of flowers and the species attributed to them in early modern scientific texts. All plants with similar looking calyxes, growing from a bulb, may have been termed lilies. However, Marcin of Urzędów, analysing the texts of ancient naturalists from a critical point of view, distinguishes between narcissus, lily of the valley and iris, although he writes that these plants bear a considerable resemblance to lilies. The *Polish Herbarium* by Marcin of Urzędów includes a note on the hyacinth, whom the author identifies as a 'March flower', i.e. a violet (Marcin of Urzędów 1595: 169). He points out that the name 'hyacinth' was also used for the white lily and the iris. The crocus, classified as a lily by the ancients, is for him a separate species. Fuchs, on the other hand, among the hyacinths includes also the tassel hyacinth (*Muscari comosum*) (Fuchs 2016: 827) and the alpine squill (*Scilla bifolia*) (Fuchs 2016: 830).

Hyacinth, crocus, anemone and tulip began to appear in European gardens in the early modern period as a result of a number of factors, including the spread of printed herbaria, the development of trade and botanical interest (Goody 1993: 184). In the herbaria, flowers were associated with mythological figures whose deaths contributed to their creation. Although the identification of flower species was problematic for Northern European naturalists, the myths of Narcissus, Crocus, Adonis or Hyacinth were still familiar to them. Efforts were also made to find a match between familiar plants and those appearing in myths and works of Antiquity, popularised at the time also by Ovid's *Metamorphoses*.

In the Franciscan monastery in Güssing, Austria, the posthumous portrait of Aurora Katharina von Formentini zu Talmein (Cat. A1, Fig. 14), the wife of the Hungarian magnate Ádám Batthyány, is preserved. She died on 5 April 1653. The woman's funeral ceremony took place in June of the same year. The *castrum doloris*, on which the deceased was laid to rest, decorated with flowers, candles and coat-of-arms shields, began to be erected on 29 May, and probably around this time the depiction of Catherine's body was made (Koltai 2002: 122-125). The flowers shown on the cushion, under the head and on the sides of the body are white rose, white tulip, narcissus, lily of the valley, anemone, carnation and on the right side of the body two multicoloured tulips. The blooming period of the flowers shown in the painting is in spring, until the end of June. It is therefore likely that the species depicted in the portrait really embellished Catherine Aurora's body a few days before her funeral. Each of the flowers chosen can be attributed an emblematic function. It is possible that the exquisite species were included in the portrait for prestige reasons, in particular the costly, multicoloured tulips.

Tulips appeared in sepulchral art because of the prevailing trend. Tulip bulbs were first brought from Constantinople to Augsburg in 1557 by the merchant Johann Heinrich Herwart (Jagiełło-Kołaczyk and Brzezowski 2014: 104) or Ogier Giselin de Busbecq, the ambassador of Archduke Ferdinand I at the court of Suleiman the Magnificent. Their dissemination was prompted by Jules Charles de L'Écluse ('Clusius'), a French humanist and botanist who succeeded in breeding a tulip cultivar that could tolerate the harsh climate of Northern Europe. In 1573, Clusius was invited to the imperial court in Vienna where he supervised the development of a botanical garden. He experimented with cross-breeding of tulips, resulting in blossoms with multi-coloured petals. In the 17th century, European tulips were attacked by tulip breaking virus (Fig. 15). The disease caused the development of flower and leaf deformities, leading to the formation of anomalies. The infection was transmitted through the bulbs in a way that was unpredictable for flower growers. In addition, the virus weakened the plant, creating a serious danger of not sprouting. Flowers with an unusual appearance deformed by the disease became most desirable, leading to an increase in demand for tulips and the so-called 'tulip fever' in the Netherlands between 1634 and 1637 (Goody 1993: 188, 189)[7].

The ephemeral tulip, like the rose, symbolised transience. Because the tulip wilts and regrows from its bulb every year, it became a symbol of immortality. Tulips were depicted on tombstones and epitaphs in Western and Central Europe in the 17th century. One of the most original funerary monuments is a stoneware sculpture depicting the bust of the girl Lydia Dwight (Cat. O11), who died on 3 March 1674. She was the daughter of the sculptor and founder of the Fulham stoneware manufactory, John Dwight. Lydia rests on a cushion, wearing a cap and a veil on her head. In her folded hands she holds a bouquet of natural flowers, among which tulips and anemones can be identified (Litten 1991: 49). Dwight also executed a parallel sculpture showing Lydia after she has been resurrected. The girl stands in a flowered meadow, and at her feet is a symbol of rebirth – a skull in a wreath of cereal ears (Dwight 1674, *Lydia Dwight Resurrected*).

[7] In the first half of the 17th century, tulips began to achieve high prices. Bulbs were sold in the summer together with documents certifying their weight. The customer could inspect the plant in bloom in June and, after it had flowered, see the bulbs extracted from the ground, which, if accepted, were not delivered until the autumn. In 1634, the bulbs still stuck in the ground began to be traded which encouraged monetary speculation. They were sold with a document certifying the weight before planting. Usually, the following year the bulb weighed significantly more, by up to 100 per cent, or the plant produced a second or even a third bulb. In 1637, the market for tulips collapsed due to inflated prices, but the fashion for the exotic flowers did not wane, and the range of their buyers widened.

**Fig. 14.** *Aurora Katharina Formentini zu Talmein*, 1653, Güssing, Franciscan monastery

**Fig. 15.** Flower of a tulip of the cultivar „Semper Augustus" infected with the tulip breaking virus

The anemone also functioned as a symbol of transience in art. It appeared in emblem collections with mottoes referring to the short life of the flower ('Brevis est usus' – 'Short is useful') (de la Feuille 1691). It also signified death and blood shed for the faith, and was shown in scenes of the Crucifixion. Marcin of Urzędów mentions, following Pliny the Elder, that the ancients wove wreaths from anemones. These flowers were also allegedly used by wreath makers in early modern Kraków (Marcin of Urzędów 1595: 27). In Europe north of the Alps, the anemone was sometimes identified with native species of flowers (Fig. 16), such as buttercups and poppies. Despite the poppy's important status in funerary symbolism, it is rarely discovered in graves. It was recently identified in burials beneath St Francis Church in Kraków (Cat. J30, J45).

Another species with extensive symbolic meanings was the carnation. Carnations whose name is derived in most European languages from nails, had been cultivated in Central Europe since the 15$^{th}$ century (Michniewska 2014: 63). The fragrant flower was associated with an aromatic spice – clove. The carnation was an attribute of the saints, one of the symbols of the Virgin Mary and the Passion of Christ, as cloves resembled the nails that were used to pound Christ to the cross. In fact, cloves are the dried buds of a tree from the family *Myrtaceae* (*Syzygium aromaticum)* which occurs naturally in Asia.


**Fig. 16.** Wood anemone (*Anemone nemorosa* L.)

The name of the flower in English comes from 'incarnation'. The carnation in the hand of the baby Jesus was a symbol referring to the mystery of Christ's incarnation. It was also believed to be a remedy to help women get pregnant (Michniewska 2014: 74). In the 15th-16th centuries it was particularly associated with love and marriage symbolism. It appeared in the hands of young people, portrayed for their nuptials or engagements.

Natural carnation flowers as a body decoration or bouquet are rarely discovered, and have recently been described in burials in Toruń (Cat. J13) and Kraków (Cat. J43, J45). The remains of carnations (*Dianthus* sp.) have been found in the filling of a pillow in the Church of the Church of Our Saviour in Copenhagen (Cat. C17) and inside the abdominal cavity of a man from the crypt in St John the Baptist Archcathedral in Warsaw (Cat. J184). Artificial carnations were discovered in a burial in the church of St Nicholas in Gniew (Cat. J242), woven into a maiden wreath (Nowak 2013-2014). They should probably be interpreted as a symbol of being betrothed during a funeral. Much more commonly, the cloves (*Syzygium aromaticum*) were used to create grave decorations.

Carnations in early modern sepulchral art appear especially in representations of children. Red carnations are shown in the hands of Magdalena Sybilla von Sachsen-Zeitz who died in 1672 (Cat. H149, Fig. 17). Next to the coffin, in a vase, there are carnations in a shade of pink. The vase of carnation flowers is embraced by 14-year-old Sophia Charlotta Weigbers (Cat. C15), whose portrait was published in a printed eulogy for her funeral in Copenhagen in 1681 (Stankiewicz 2015: 99). Karl Zdeněk of Žerotín who died in 1620, whose portrait is preserved at Velké Losiny Castle, is wearing a wreath of myrtle flowers and carnations on his head. The boy is holding a bouquet of three carnation flowers in his hands (Cat. K7, Fig. 18). A carnation is also shown in the hand of little Carolus Horn in a portrait in the collection of the Nordiska Museet in Stockholm (Neiman 1662, Cat. N13).

**Fig. 17.** Christian Schäffer, *Magdalena Sybilla von Sachsen-Zeitz – portrait in a coffin*, 1672, Zeitz, Museum Castle Moritzburg

**Fig. 18.** *Post-mortem portrait of Karl Zdeněk of Žerotín*, 1620, Státní zámek Velké Losiny

An interesting set of flowers is presented in the posthumous portrait of Princess Antonia von Württemberg (Cat. H6, Fig. 19) held in the Landesmuseum Württemberg in Stuttgart. Prior to her death on 1 October 1679, she expressed her wish not to have her body embalmed. The funeral therefore took place on the 9th day after her death. In the meantime, a whole-figure posthumous portrait was created. In the painting, the deceased is lying in a coffin lined with silk bedding, surrounded by flowers, among which are carnations, crocuses, narcissi, daffodils, hyacinths and irises. A flowering branch (of an apple tree?) has been stuck behind the headrest. Red roses, lily of the valley and perhaps anemones (?) are woven into a wreath made of green rosemary. Near the Princess's temple is an orange (or apple?). A decoration of rosemary leaves and rose, hyacinth and anemone flowers has been arranged on the body, from chest to knee height.

According to the authors of the exhibition in Stuttgart, the body of Antonia who was buried in October, may have been decorated with artificial flowers[8]. It is also likely that the flowers shown in the painting were not used during the funeral and are purely the artist's vision. Antonia, known by her contemporaries as Minerva, was renowned for her education and passion for the study of the Scripture. It is particularly noteworthy that the flowers depicted in the portrait are known from ancient mythology. They also appear in the pages of the Holy Bible. The letters painted above the coffin: 'E.(wige) L.(icht)' which refer to the light of the forthcoming resurrection, indicate that the decorations were inspired by the Christian faith.

[8] Olaf Siart – oral information.

**Fig. 19**. *Coffin portrait of Antonia von Württemberg who died on the 1st of October 1679*, Stuttgart, Württembergisches Landesmuseum

The arrangement of Antonia von Württemberg's coffin is an illustration of the verses of the *Song of Songs*. The set of plants in the portrait can be related to the scene of the betrothal, which in older translations of the Bible from *Vulgate*, unlike modern translations, contains much more detail drawn from the world of flora:

> "I am the rose of Sharon, and the lily of the valleys.
> As the lily among thorns, so is my love among the daughters.
> As the apple tree among the trees of the wood, so is my beloved among the sons. I sat down under his shadow with great delight, and his fruit was sweet to my taste.
> He brought me to the banqueting house, and his banner over me was love.
> Stay me with flagons, comfort me with apples: for I am sick of love.
> His left hand is under my head, and his right hand doth embrace me.
> I charge you, O ye daughters of Jerusalem, by the roes, and by the hinds of the field, that ye stir not up, nor awake my love, till he please."
>
> *King James Bible* (So. 2:1-7)

Antonia is depicted as the bride in virgin dress, with her hair loose and wearing a wreath on her head[9]. On the symbolic layer, the portrait shows the scene of Antonia's posthumous betrothal to Christ.

In later translations of the Scripture, a rose and other flower species were sometimes substituted for the lily. The bridegroom describes himself as a rose/narcissus/lily of Saron (So. 2:1), each flower's symbolic meanings being interpreted as Christ characteristics. In another passage, the comparison "as the lily among thorns" is a reference to the purity of the Bride. Saffron (*Crocus sativus*) is mentioned among other fragrances in the description of the enclosed garden symbolising the Bride (So. 4:14).

[9] Dying unmarried, the duchess was 66 years old.

The apple branch above the head of the deceased Antonia refers to the passage: "As the apple tree among the trees of the wood, so is my beloved among the sons. I sat down under his shadow with great delight, and his fruit was sweet to my taste" (So. 2:3). It symbolises Christ the Bridegroom in whose "shadow" the deceased is sheltered. At the same time, it signifies his sacrifice, represented by the fruit ("his fruit was sweet to my taste"), through which the deceased can await resurrection.

Near Antonia's head is visible a large reddish fruit – an apple or an orange which in the early modern period was included among the symbols of marriage. Citrus, apples and pomegranates, were considered a sign of femininity, abundance, fertility, but also virginity. It seems that the verse translated from the *Vulgate*: "Fulcite me floribus, stipate me malis, quia amore langueo" – "Cover me with flowers, sprinkle me with apples, for I faint from love" was literally transferred into a painting. The tree of paradise was considered a prefiguration of Christ's sacrifice. This metaphor was developed by Saint Bonaventure in the 13th century. Under its influence, the cross began to be depicted in art as a living tree with branches, leaves and fruit. The infant Jesus was often shown holding a fruit in his hand, as a sign of his future Passion and Resurrection. It could have been an apple, a pomegranate, a grape or an apricot. The fruit in the hand of little Jesus indicates that he stands for the Second Adam who overcomes original sin. Mary, by giving birth to Christ, became the Second Eve[10] (Kobielus 2006: 91). The Latin word *malum* without the second part – the species name − used to mean any fruit. Because *Genesis* did not specify, what kind of fruit bore the Tree of the knowledge of good and evil, the early Christians identified it as the well-known to them figs, oranges, lemons, quinces, pomegranates or grapes. For Europeans, the tree of Eden became an apple tree which is common in temperate climate. The last verse of the cited *Song of Songs* passage contains an exhortation to not interrupt the sleep of the Bride. It refers to the belief in the transitory nature of death and the resurrection from the dead in the future.

By the end of the 16th century in the Netherlands, flower and fruit compositions had achieved the status of a separate painting genre. A new type of allegory developed, in which flowers serve as emblematic figures. Early modern floral still lifes were characterised by a realism of representation, derived from scientific illustration. They carried a wide range of symbolic content, in which the motif of praise of the material world, by showing the beauty of nature, was combined with a moral, religious or philosophical message. Floral bouquets were intended to stimulate the viewer to intellectual reflection on the world of matter (Zasławska 2002: 164-165).

It is likely that natural flowers were not of very practical use in funeral ceremonies, as they lost their freshness too quickly. They were also, except for a few months of the year, unavailable. Perhaps for this reason, artificial imitations of flowers were used. Posthumous portraits present a broader range of plant species. A more limited set of flowers is found in tombstone representations and on epitaphs. In sepulchral sculpture, the reduction to the most obvious associations was a result of to the need to capture the abundance of *vanitas* symbolism in a synthesised form.

On tombstones, the deceased were most often depicted with flowers or bouquets in their hands. It is somewhat less common to see floral wreaths on the heads of figures. Flowers are also found in the area surrounding the deceased figure. Sometimes placing of flowers in vases or flowers hanging from the branches served to build up the illusion of depth. Very seldom a gravestone scene is narrative and includes the interaction of the deceased with the plants placed around them. Usually, the flowers themselves fill the background in isolation from the main scene or form its borders. Tombstone images were often made many years after the death of the person depicted. Rigid conventions of portrayal were followed, for instance children a few years old, were often shown as much older. Therefore, it can certainly be ruled out that they were documentary in nature, apart from images created on the basis of portraits taken shortly after death. The paintings or drawings of decorated bodies before burial are probably more realistic than the figures on the gravestones, but also contain elements of idealisation.

[10] "Eve through the fruit of the tree doomed us to condemnation, Mary through the gift of the tree obtained forgiveness because Christ hung on the cross like fruit" (St Ambrose; Kobielus 2006: 91).

The portraits practically lack species that are irrelevant in early modern plant symbolism. Meanwhile, as demonstrated by detailed botanical research, inside modern burials plants that are important from a medicinal point of view, but less frequently (or even never) exploited as symbols, dominate. This is probably related to the representational function of the portraits. They were commissioned by people, who could certainly afford to buy expensive funerary decorations, with access to fashionable flowers, the display of which emphasised their high material position. These portraits were keepsakes for the family, fellow believers and subsequent generations, so perhaps attention was paid to ensuring that the floral symbols brought didactic messages and references to the social identification of the deceased. The utility plants that provided aroma and aided the preservation of the corpse, hidden in pillows, pouches and mattresses, were not intended to be seen by mourners. It is therefore inappropriate to attribute a symbolic function to them.

The portraits of the wealthy women of the upper classes, the Princess Antonia von Württemberg and the wife of the Central European magnate Aurora Katharina Formentini zu Talmein, mainly feature flowers that were made famous by ancient myths. This may indicate that the posthumous portraits are allegorical representations, composed for those with the right level of intellectual training, rather than documenting reality. At the same time, it is known that the arrangements of the *castrum doloris* were rich in symbols and various kinds of props to illustrate messages understandable to an educated audience.

It is possible that the natural plants placed in the burials were only the equivalent of desirable, prestigious and more highly valued species, such as the rose, lily, iris, tulip, anemone, carnation, narcissus, daffodil, hyacinth, crocus, lily of the valley, forget-me-not or poppy. Access to flowers beyond their blooming season was limited and the drying was not always possible to carry out. Difficulties in the classification and species identification of flowers revealed in early modern herbaria suggest that these flowers were rather rarely seen in nature in Europe north of the Alps.

It can be assumed that in the production of tomb decorations only the green parts of natural plants were used, to which artificial flowers were added, thus the scarcity of remains of symbolically significant, living flowers in the archaeological finds. A fragment of a green plant sufficiently fulfilled its role, providing a fragrance and, as a part of the nature, reminding of mortality, the passing of the world and the hope of seeing the Garden of Eden. It is also possible that the plants featured in the post-mortem portraits adorned the body before the funeral ceremonies, but that they did not end up with it in the grave. The most likely reason, however, seems to be that the subject is still insufficiently recognised through archaeological research.

The flowers as symbols in tombstone art served the viewer, allowing reflection to be transferred to his or her own status. They became one of the tombstone symbols as they illustrated man's precarious fate through the analogy of the plant's fragile life. Support for these associations is found in words from the Scripture, including the *Book of Psalms*: "As for man, his days are like grass; he flourishes like a flower of the field; for the wind passes over it, and it is gone, and its place knows it no more" (Psalm 103:15--16) and Isaiah: "All flesh is grass, And all its loveliness is like the flower of the field" (Is 40:6).

Plants placed in burials (especially floral decorations) can be interpreted individually or treated as symbols to recall the futility of the material world. In that case, precision in the choice of species in botanical terms would be a peripheral issue.

As Christina Jonsson suggests, the manner in which modern burials were furnished was characterised more by concern for the deceased than by the need to manifest the status of the family (Jonsson 2009: 179). However, it is likely that the reasons for the extension of the early modern ceremony with furnishings containing plants combine both social and representational purposes, along with intimate emotions and the individual experience of mourning by those closest to the deceased, who were responsible for the funeral organisation. Beautiful and fragrant flowers placed in graves, regardless of species, could therefore be a personal expression of private mourning and feelings towards a lost family member.

## 3.2. Twigs and sprigs

Green sprigs of herbs in the early modern period were supposed to be placed in the folded hands of the deceased. They were also arranged around the body on the bedding and along the body – on the robe, individually, or gathered in small bundles.

As it seems, this act was not always of only decorative value. The aroma of the herbs helped to camouflage the unpleasant smell of the corpse during the funeral. Probably for hygienic reasons, green sprigs of natural plants were used for this purpose.

For Hanseatic towns the early modern custom of placing twigs in folded hands is reported in source texts, where they appear under the name of 'Kreutchen' (from German). According to Edmund Kizik, these were twigs of evergreen shrubs: myrtle, cypress or laurel (Kizik 1998: 88).

In tombstone iconography, twigs were usually shown in the hands of the deceased. In contrast, on portraits depicting bodies before burial and in archaeologically explored graves, sprigs of herbs are usually found arranged on the body or bedding.

As is the case for flowers, it is difficult to attribute the function of independent decoration to the remains found on robes and grave linen. Garlands, bouquets, maiden wreaths and other decorative, floral constructions were also built from the herbaceous parts of evergreen plants.

The motif of a twig, or a flower in the hand, is often recurring on tombstone images showing the deceased as living persons in a standing position. However, determining the species of plant is sometimes problematic due to the considerable degree of stylisation of the depictions and, in most cases, the poor state of preservation of the stone plates.

In Silesian grave art, the twig appears as a realistic attribute of the deceased. Unlike flowers, its symbolic role is declined due to the clearly portrayal nature of the images. Most often represented were sprigs of rosemary. The twigs can be found on children's tombstones created probably on the basis of post-mortem portraits that have not survived to the present day. Such depictions include the tombstone of 8-month-old Anna Maria von Brösick from the church in Ketzür in Brandenburg from 1620 (Cat. H54). Rosemary branches are placed in the hands of the child, who is portrayed as dead, resting in a coffin. A similar sepulchral representation was placed in the monastery church of Barsinghausen in Lower Saxony for the 2-year-old Magdalena Dorothea von Windheim who died in 1658 (Cat. H102). The sprigs of herbs are shown on the pillow, under her head and in the girl's folded hands (Stankiewicz 2015: 105).

Catherina (Cat. G1, Fig. 20), daughter of the artist Gerard ter Borch, is portrayed in a realistic manner with a sprig in her hand in the coffin (Morel 2003: 27). A sprig of rosemary is also held by a child in a posthumous portrait from 1654, kept at the Groningen Museum (Netherlands; Cat. G17, Fig. 21). The deceased toddler is dressed in a mortal shirt tied at the neck with an embroidered inscription. The child's head, wearing a bonnet and a green wreath interspersed with white flowers, rests supported on a cushion. With poignant realism, a delicate sprig of rosemary is depicted in the hand of the Hungarian aristocrat Catherine Horvath-Stansith, née Kissová, in a posthumous portrait from around 1680 (Cat. L2, Fig. 23).

**Fig. 20.** *Catherina ter Borch, daughter of the painter Gerard ter Borch*, 1633, Zwolle, currently: Amsterdam, Rijksmuseum

In the already described portrait of Aurora Katharina Formentini zu Talmein (Cat. A1, Fig. 14), in addition to numerous flowers on the mattress and coffin pillow, a sprig of rosemary or juniper is displayed near her feet. A rosemary sprig is also depicted in the folded hands of Duke Friedrich III. von Schleswig-Holstein-Gottorp in a posthumous portrait from 1659 (Cat. H164, Fig. 24; Kügler 2003: 440). Probably a more common practice

than placing a branch in the hand was to cover the surroundings of the body – a cushion, mattress or robe of the deceased − with aromatic herbs.

**Fig. 21.** Jan Jansz de Stomme, *Portrait of the dead child*, 1654, Museum Groningen

The portrait of Hannibal Gustaf Wrangel (Cat. N19, Fig. 25), housed at Skokloster Castle near Stockholm, shows the deceased boy wearing white silk lace clothing and a pearl cap on his head. Hannibal in his folded hands holds a bouquet of artificial red flowers interwoven with green branches and pearls. The body was draped with green sprigs, possibly of rosemary (?), which were arranged in the shape of a Latin cross on the chest. Rosemary was also placed on the pillow and clothing of an unknown child from the Dobai family who died in 1737 and is depicted in a portrait from Bratislava (Cat. L1, Fig. 26). Rosemary sprigs on a pillow, around the corpse, on clothing, and in folded hands, are shown in a portrait of Boldizsár Horvath-Stansith (Cat. L3). Sprigs of rosemary and myrtle can be found on coffin pillows and the beddings of children of Duke Eberhard III. von Württemberg, Dorothea Amalia and Carl Christoph[11], who died in 1650 (Cat. H4; Knöll 2009: 257). Rosemary on a cushion was also laid by the 9-year-old Christian von Sachsen-Altenburg who died in 1663 (Cat. H165, Figs. 2, 3; Kügler 2003: 441). In the already mentioned portrait of a child from Rysum Castle (Cat. H112), the coffin cushion was covered with laurel leaves, conifer branches and flowers. In the grave of a young child buried in the cemetery at the Dominican monastery in Prenzlau (Cat. H47), a fragment of a boxwood branch was found near the head. The cemetery dates between the 2nd half of the 16th century and the 2nd half of the 18th century (Ungerath, n.d.). In Riesa Cloister Church yew branches were observed (Alterauge and Hofmann 2020: 81)

Among archaeological finds, in iconographic sources and literature, only sprigs of evergreen plants appear, whose symbolism relating to the funerary sphere is very extensive and well documented. Evergreen plants played an important role in funerary rites in Antiquity. In the early modern period, they were linked to the resurrection. They combined characteristics such as freshness, aroma and greenery, indicating healing and life-prolonging properties. Because they do not wither away for the winter, sprigs of evergreen herbs in the hands of the dead signified hope for eternal life. It is likely that analogy was formerly recognised between evergreen plants and people who died before reaching maturity. The underlying metaphor was that evergreen plants do not perish for the winter, and therefore do not go through the full annual cycle, such as people who passed away too early can not complete the life cycle. The meaning of the green funeral branches can be summarised as referring to resurrection and triumph at the same time.

The important function of evergreen herbs in funerary ceremonies can be seen from the long tradition of their use. However, as in the case of grave wreaths, evidence of the use of evergreens of Mediterranean origin in the form of twigs in the Middle Ages is scarce and limited to the wealthier strata of society. Few proofs of the use of evergreen plants in funerary ceremonies are provided by iconography.

[11] The memorial of children from Landesmuseum Württemberg shows two sarcophagi surrounded by growing plants, among which are the rose of Jericho, symbolising the Resurrection, and the passion flower. Passiflora which Europeans recognised around 1550, just a century before the painting was made, was regarded as a sign of Christ's Passion, due to physical structures of this plant (Fig. 27).


**Fig. 22.** Common myrtle (*Myrtus communis*)

One of the oldest tomb portraits showing the deceased with evergreen plant twig is a statue of count Heinrich III. von Sayn, stored in the Germanisches Nationalmuseum in Nuremberg, coming from the Premonstratensian church in Sayn near Koblenz (Cat. H16, Fig.28).

The wooden sculpture, dating from around 1247/48, is most likely a double portrait of the count and his daughter, who died a year before him. The man is standing under a baldachin. Beside him is a female figure with a lemon or pomegranate in her right hand. The girl originally held a partially preserved, carved rosemary branch, which the man grasps in his right hand (Neurath-Sippel 2011: 121-122).

A scene from the panel of a stained-glass window from a medieval house in Leicester from around 1500, depicting the laying of a corpse in the tomb, shows the priest sprinkling the body with holy water using a sprig of hys-

**Fig. 23.** *Katharina Horvath-Stansith, rod. Kissová – postmortem portrait*, 1670-1700, Bratislava, Slovak National Gallery

**Fig. 24.** *Friedrich III. von Schleswig-Holstein-Gottorp – portrait in funeral oration*, 1659, Schleswig, currently: Darmstadt, Landes- und Hochschulbibliothek

sop. The custom of using plant springs as an aspergillum derives from the Book of Psalms' description of the Jewish ritual of purification: "Purge me with hyssop, and I shall be clean: wash me, and I shall be whiter than snow" (Psalm 51:9). In Western Europe it continued at least into the early modern period (Gilchrist and Sloane 2005b: 181). Boxwood was also used as an aspergillum at funerals until contemporary times.

Native to the Mediterranean, hyssop made its appearance in Europe north of the Alps in the early Middle Ages. It was cultivated in monastery gardens as one of the medic-

**Fig. 25.** *Posthumous portrait of Hannibal Gustaf Wrangel af Lindeberg who died on the 8th of January 1643*, Skokloster Castle (painting made in Lüneburg)


**Fig. 26.** *Posthumous portrait of a child from the Dobai family*, after 1737, Bratislava City Gallery

inal herbs (Fijałkowski and Chojnacka-Fijałkowska 2009: 178-179). Many varieties of the plant were used in Antiquity. The species *Hyssopus officinalis* was used in European medicine from the early Middle Ages. Hyssop symbolised not only physical, but also moral purification. It was recommended by authors of medical texts for treating of oral diseases, coughs, parasites and toothache. It probably did not arrive on the territory of Poland until the 15th or 16th century (Kawałko 1986: 265-266). Hyssop has been identified in late Gothic paintings created in Poland and

in a portrait by Christopher Suchten from 1507 stored in the National Museum in Gdańsk. Hyssop-based remedies which were widespread in the 16th century, gradually lost popularity. By the 19th century the herb was already used very rarely as an expectorant medicine. Hyssop was identified as an intense aromatic herb; thus, its sprigs were kept in prayer books to stimulate the focus of worshippers during long sermons (Kawałko 1986: 269-271). In Central Europe, hyssop is present in cultivated and feral forms. It was one of the herbs consecrated during the octave of Corpus Christi and Feast of the Assumption of Mary (Paluch 1984: 124). The consecrated herb was hidden under the thatch and the rooms were fumigated with it to keep away evil. A garland of consecrated hyssop was hung outside the hut to protect it from lightning strikes (Fischer and Kujawska 2016: 379).

In the Cathedral of Basel, the remains of Bishop Johann II. Senn von Münsingen (Cat. M1) were discovered deposited in a coffin and covered with sprigs of sage (*Salvia officnalis*). Sage contains essential oils, about half of which is thujone. Historically, it was a consumption plant (as tea or food ingredient) and had numerous medicinal uses (Nowiński 1983: 49; Fischer and Kujawska 2016: 476). Above all, it was used for treatment of oral, dental and throat conditions. It was believed that sage in the garden was the hiding place of reptiles or amphibians, and that supernatural creatures could be born from it spontaneously. In Central Europe, it may have been known already in the early Middle Ages. It is one of the most frequently mentioned therapeutic plants in medieval texts on medicine and horticulture. It was also thought to protect against plague (Nowiński 1983: 49-50). In the 18th-20th centuries, sage was used in numerous magical procedures of a protective nature. It was burnt during St John's Day rituals, leaves with spells written on them were ingested, and consecrated sprigs were plugged into the thatch of a hut (Nowiński 1983: 49; Fischer and Kujawska, 2016: 477). Sage remains have been discovered in the cushions and linings of coffins at Trendelburg (Cat. H94, at Nassau (Cat. H131) and Kraków (Cat. J30).


**Fig. 27.** *Memorial for Dorothea Amalia and Carl Christoph, the children of Duke Eberhard III. von Württemberg*, 1650, Landesmuseum Württemberg

PI.O. 2299 © Germanisches Nationalmuseum

**Fig. 28.** *Tomb sculpture of Count Heinrich III. von Sayn with his daughter (?)*, circa 1247/48, Nuremberg, Germanisches Nationalmuseum

A particular symbol since the beginning of Christianity was the palm branch. According to the *Golden Legend* of Jacobus de Voraigne, St John the Evangelist brought a palm leaf from the Garden of Eden to Virgin Mary's funeral, which she had received from an angel three days before her death (Michniewska 2014: 65). In art, the palm leaf or tree is primarily a reference to paradise.

Palm branches, ordained on the Palm Sunday, refer to Christ's triumphal entry into Jerusalem, foreshadowing the Resurrection. The custom of blessing branches at Easter developed among Christians in Jerusalem, from where it was adopted by the Western Church around the 5th-6th centuries. From the 11th century, it became part of the Palm Sunday liturgy. The palm symbolises victory, which originates from the ancient Romans' custom of entering the conquered settlements with its branches (Szczepanowicz 2013: 55-56). It is also depicted in art in the hands of martyrs who have remained firm in their faith (Kucia 2011: 100).


**Fig. 29.** Catnip (*Nepeta cataria* L.)

The meanings usually attributed to the palm branch, referring to triumph and Resurrection, was extended in Europe north of the Alps to locally occurring botanical specimens. Treated as 'palms' became species of plants that would become green in early spring and with clearly distinguishable, small leaves. On Polish soil, the willow, a tree that is among the first to develop leaves in spring, was used to produce 'palms'. In Western and Central Europe, the evergreen boxwood was also identified with the palm and

used during Easter. In Northern Europe, these were willow or birch branches too, brought home from religious ceremonies, and stored thereafter for medicinal and magical purposes (Jonsson 2007: 5).

A sprig of willow was placed in a burial at Bordesley, England which dates broadly to the medieval period (Cat. O61). Sprigs of laurel (*Laurus nobilis*) and willow (*Salix*) formed the grave pit lining in a 'pilgrim burial' (Cat. O63) of c. 1480-1510 revealed in the south aisle of Worcester Cathedral Church (Gilchrist and Sloane 2005b: 146). Willow branches were used to create the bases of wreaths discovered in Thaldorf cemetery (Cat. H141), in Zeitz Cathedral (Cat. H145), and in the cemetery at St Elizabeth's Church in Wrocław (Cat. J138). In Thaldorf, a vessel containing a medicine made most likely from willow was found in a child's grave (Cat. H137; Schafberg 2006: 254).

In Scandinavia, Britain, France and Germany, tree branches, primarily hazel, referred to as 'pilgrim's staffs', can be found in graves. These were usually placed under the coffin, and less often inside or above the coffin. They also occur in graves without a coffin. They have been discovered in burials dating to the medieval and early modern periods. As most of these finds would not have been able to fulfil the role of a walking stick by being too small in size, it is presumed that they only served as symbols of pilgrim staffs (Gilchrist and Sloane 2005b: 175). They have also been interpreted as crutches to facilitate the mobility of the disabled, rods used to carry the coffin or ceremonial staffs, which are depicted in the hands of mourners in late medieval iconography. Kristina Jonsson believes that these may be rods used to take the measure off the corpse before the casket is made or the grave pit dug. The earliest evidence of coffin or grave pit measuring rituals in Western Europe dates back to the 15th century (Jonsson 2007: 47-51). From the information gathered through ethnographic interviews, it appears that in the Polish lands the measurement was taken with rods usually made of wild elderberry branch. The custom of throwing branches, brushwood or sticks on graves among the Slavs, on the other hand, was considered to be a remnant of pre-Christian funerals (Labudda 1983, 56).

Sprigs of herbs, as well as citrus fruit, were carried in the hands or attached to robes of corpse-bearers at funerals to protect them from the stench rising from the dead body. Passing a green sprig to each other was a way of announcing the death to family members. Pronouncement of death was also done from the Middle Ages onwards by sending a special rod from house to house. Later, in the villages, the sign of death could be a piece of corrugated wood, a twig, a 'mourning baton', a rod or the root of a young tree (Biegeleisen 1930: 197-199).

**Fig. 30.** Shepherd's purse (*Capsella bursa-pastoris*)

The twigs forming a thick layer over the entire body, also covering the head, certainly did not serve a decorative function in burials. A corpse prepared in this manner was discovered in the crypt of Helsingør Cathedral in Denmark (Cat. C13). The body of Anna Belfour, wrapped in a shroud, was covered on the outside with branches of boxwood (*Buxus sempervirens* L.). Besides boxwood, the remains of the plants forming the bouquet were discovered inside the shroud (Karg 2001: 137). While the plants forming the bouquet can be categorised as burial decoration, the boxwood on the outside of the shroud had a purely utilitarian function. Covered in a very similar manner with boxwood branches was one of the children buried in the crypt at the Church of the Name of the Blessed Virgin Mary in Szczuczyn, who died in 1718 (Cat. J220). The branches were placed along the sides of the coffin and partially on the body of the deceased (Grupa *et al.* 2014: photo 63).

In the Church of St Wenceslas in Mikulov, the burial of Marketa Františka Lobkowicz, née von Dietrichstein (Cat. K8) was revealed. The girl died at the age of 17 in 1617. She was buried in a silk dress, with her face covered by a silk veil. Her body was covered with sprigs of myrtle (Drozdová 2006, 97).

The tight coverage with fragrant twigs protected the corpse from quick deterioration and insects. The effects of this treatment were probably expected to be long-lasting, in contrast to the *ad hoc* use of small sprigs or bouquets during the corpse presentation. Herbs were believed to combat the vapour of decay (*miasma*), which was believed to be the cause of infectious diseases. The accumulation of coffins inside churches was not only a nuisance, but also raised concerns over the spread of contagion. On feast days, the floors in churches and homes, were sprinkled with the fragrant cut sprigs of fresh plants for sanitary reasons. In England in the 18t$^{h}$ century, the most popular for this purpose was mugwort. In Finland, spruce and juniper were most commonly used (Kallio-Seppä and Tranberg, 2020: 7).

In Northern Europe, characteristic was the use of fragments of wood, shavings, twigs and bark from conifers and birch trees, which are the main components of the local flora, to cover the bodies of the dead. In Northern Europe, corpses were covered using mainly conifer branches. In Finland (Ostrobothnia), the custom continued from the 17$^{th}$/18$^{th}$ - 19$^{th}$ century. According to the ethnographers, spruce branches (*Picea*) placed in the coffin were supposed to prevent the deceased from moving and leaving the grave (Tranberg 2015: 194).

In Polish lands, conifers were also ascribed apotropaic properties. Conifer branches were used before, and also during funeral ceremonies. In Pomerania, messengers informing people of a funeral would hit the doors with conifer branches. Conifer twigs were also scattered around the deceased's house and on the road leading from the cemetery in order to confuse a wandering spirit, which, if it returned, could cause harm to the living (Bonowska 2004: 51).

Conifer and thuja branches are still used today to compose funeral garlands, bouquets and cemetery decorations. Conifers and shrubs of the genus *Thuja* are the most widespread plants in the flora of today's graveyards in Poland. The modern custom of decorating graves and commemorating the dead with green branches probably dates back to the end of the 19$^{th}$ century, but its roots can be traced back to the early modern period.

Sprigs of pine (*Pinus* L.) and *Thuja* L. were found on the lower thigh of the deceased Frederick Rehren, who was buried in the crypt located in St Michael's cemetery in Lüneburg at the end of the 19$^{th}$ century (Ströbl and Vick 2008: 75-78). Garlands made of fir branches (*Abies* Mill.) covered the body of Bishop Robert Herzog buried in the cathedral of Wrocław (Cat. J136).

Among the plants that began to be placed in tombs in Europe at the end of the modern era is the palm. The reason for this is mainly the limited availability and the symbolic unification of the Biblical palm branch with other plants widespread in Europe north of the Alps. In modern post-mortem portraits and epitaphs, the palm branch does not appear as a realistic attribute, but instead occurs within the operating sphere of the supernatural figures, for example in the hands of angels emerging from the clouds carrying a crown of glory. The palm branch motif on objects used during a funeral appeared more frequently towards the end of the modern period. It featured in coffin decorations, coffin portrait frames and grave crowns.

In the Church of the Virgin Mary's Ascension in Toruń, a funerary gown made of silk with a date palm motif was discovered in one of the 18th-century patrician burials (Grupa 2005, 173-174).

From the 19th century onwards, the palm branch became one of the most widely used symbols in sepulchral sculpture, which can be linked to a change in the semantics of symbols at the dawn of modernity and the establishment of a new approach to the heritage of Antiquity (Seib 2007: 149).

A palm branch was discovered in the burial of Antonina Skórzewska, who died in 1824 and was buried in a private crypt in Łabiszyn (Cat. J17). It was probably placed in the woman's folded hands on her stomach before burial (Kochman 2012: 31). Twigs possibly of date palm (*Phoenix*) are found next to a coffin placed in 1877 or 1878 in the crypt at St Nicholas Cemetery in Görlitz (Cat. H106; Ströbl and Vick 2010: 49).

## 3.3. Bouquets in burials

Bouquets in the modern period were placed on the body or in the folded hands of the deceased, on the grave linen, attached to clothing or furnishings and also put on the coffin lid.

Similar to grave wreaths, they were constructed partly from natural plants, supported by a wire frame, and interlaced with artificial flowers, metal ornaments and natural or artificial pearls.

There is little information in the literature about the natural flowers, from which bouquets were composed. Usually, only the stems of natural plants are preserved in graves, due to saturation with ions from metal decomposition.

Metal or wooden bouquet holders which are called *Blumenhalter* (from German), have also been discovered in graves. Holders have been found in the Salvator cemetery in Wrocław (Wojcieszak 2015: 35), in St John's Church in Gdańsk (Drążkowska 2007a: 491), the castle chapel in Brzeg, and in the castle crypt in Szczecin (Wachowski 2015: 237).

The location of bouquets within a burial can vary widely. The bouquets were placed on the garments of the nuns buried in the crypt beneath the Chapel of Saint Barbara in Lüne Abbey in Lüneburg. Equipped with the bouquet was Sister Dorothea von Meding (Cat. H107) who died in 1634, in whose coffin numerous botanical remains were found. Unfortunately, the plant composition of the bouquet is unknown (Ströbl and Vick 2007: 53). The burial of nun Catharina Margaretha von Estorff (Cat. H108), who died on 13 January 1659, contained stems of unidentified plants tied with a black ribbon and a bow. The bouquet was placed on the right arm of the deceased (Wiethold 2005: 32, Ströbl and Vick, 2005: 24, 2007: 53).

A bouquet may also have been located on the right shoulder of a woman, who died at the age of 30-35 and was buried in the cemetery at St Elizabeth's Church in Wrocław (Cat. J137, Fig. 31). This is evidenced by the green staining observed on the right humerus. The bouquet was made of copper alloy wires entwined with silk thread with a metal braiding. Twigs of natural plants, the stalks of which were partially preserved, were woven into the metal wire frame of the bouquet.


**Fig. 31.** Remains of a bouquet from the cemetery at St Elizabeth Church in Wrocław, photog. T. Gąsior

A burial of 18-year-old Thomas Craven (Cat. F13) has been discovered in Saint-Maurice, Val-de-Marne in France. The young man died on 20 November 1636. His embalmed body was deposited in the ground in a lead sarcophagus. A bouquet of unspecified plants with long stems was found near his feet (Hadjouis and Corbineau 2008).

In Breslau, in the cemetery at the Church of Saint Mary Magdalene, the remains of a bouquet made of artificial flowers were discovered in the grave of a child, who died

as infant (Cat. J141). The parts of bouquet included metal flowers and a loose substance, possibly the remains of paper petals, observed on the child's leg bones. Analogous to the bouquet from St Elisabeth's Church in Wrocław, the handle was formed by a bunch of plant stems, each wrapped in thread with a metal braiding. It was tied with a textile ribbon (Wojcieszak 2010a: 160).

In Keminmaa (northern Finland), in the crypt of St Michael's Church, a bouquet of artificial flowers was placed in the hands of a child of the Frosterius family (Cat. E2), who died in 1763 (Lipkin *et al.* 2020: 219).

In the Salvator cemetery in Wrocław, three small bouquets (in German *Handstraußchen*) were discovered in a child's grave. They were arranged on the right side of the skull, by the left femur and on the left tibia. In the same cemetery in another burial, a bouquet in the form of a garland was found on the coffin lid. The remains of bouquets made of organic and inorganic elements were further recorded in 16 other graves in this cemetery (Wojcieszak 2015, 35-36).

In cemetery at the St James Church in Toruń, the slow shift away from the use of wreaths at this time in favour of bouquets in burials dated from the 18th century, may indicate changes occurring in funeral ceremony (Sulkowska-Tuszyńska 2022: 115).In the Spitalkirche in Bad Windsheim, bouquets were found in the burials of members of the von Reitzenstein family (Cat. H10, H11, H12, H13). They all died between 1632 and 1634. Under the right hand of Johann Christian von Reitzenstein (Cat. H13), at the chest level, were the remains of a prayer book and a bouquet made of boxwood with partially gilded leaves, metal foil and metal ornaments (*Flitter*; Steeger 2003: 31). The eldest daughter, Maria Barbara von Reitzenstein (Cat. H12), died on 6 September 1634 at the age of 16. Her burial was furnished with the most varied ornaments. Remnants of the coffin decoration in the form of two garlands have survived. On the girl's head was an elaborate hairstyle composed of several little braids interwoven with ribbon, each pinned to her head. In these were inserted bunches of flowers. The coffin contained a bouquet of boxwood branches with partially gilded leaves, metal ornaments and rosemary (Steeger 2003: 30). Heinrich von Reitzenstein (Cat. H10) who died in 1632 at the age of 5, was buried amidst bouquets of boxwood, silk flowers, rosemary sprigs, combined with gold-covered oak galls and tin ornaments. Surrounding the coffin were a large number of boxwood bouquets with partially gilded leaves, strips of non-ferrous metals and sequins (*Pailleten*) (Steeger 2003: 28). The youngest of the children, just a year-old Eva Rosina von Reitzenstein (Cat. H11), died on 26 August 1633. On the right side of her body, at her chest, there was a bouquet in a metal holder, made of rosemary sprigs combined with gilded oak galls. On the girl's head was a sepulchral crown (Steeger 2003: 28-32).

Oak galls covered with gold foil, juniper berries and cloves in the bouquets were probably intended to imitate pearls or expensive jewels and to add the aroma. An adult woman in the cemetery at the Dominican church in Prenzlau (Cat. H48) was buried with four bouquets: one in her folded hands, two at chest level and one near her knees. The preserved stems were wrapped in red ribbon and interwoven with juniper berries strung on copper wire (Ungerath, n.d.). In Thaldorf, a bouquet of artificial flowers combined with cloves was found in a child's burial (Cat. H141; Schafberg 2006: 256). A bouquet with cloves was also discovered in the Collegiate Church of the Blessed Virgin Mary Queen of the World in Stargard (Cat. J271; *Dziennik pisany z krypty*, 2019).

Similar to the wreaths, the bouquets were thought as most suitable for funerals of younger deceased, symbolically becoming brides and grooms, as they were made from plants associated with the marriage. In the Salvator cemetery in Wrocław the bouquets have been discovered predominantly in the burials of children who died before the age of 7 (Wojcieszak 2015: 35-36). Ethnographer Henryk Biegeleisen mentions that in European villages in the 19th-20th centuries, girls were buried with wreaths on their heads, while bouquets were gifted to deceased boys (Biegeleisen 1930: 154). However, a small bouquet of artificial flowers can also be seen in the hands of Johann Casimir Wittelsbach, Count Palatine of Simmern, who died on 16 January 1592 at the age of 49, in his post-mortem portrait (Cat. H3, Fig. 32).

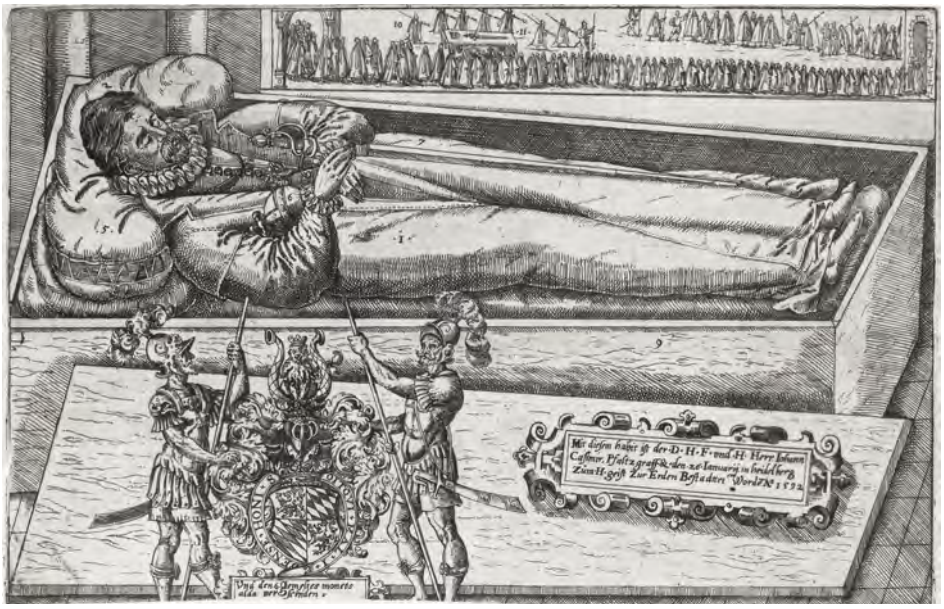

**Fig. 32.** *Coffin portrait of Johann Casimir Wittelsbach who died on the 16th of January 1592*, Heidelberg, currently: Sächsische Landesbibliothek – Staats- und Universitätsbibliothek Dresden

Bouquets of rosemary tied with silk ribbons in pink are shown in the portrait of Anna Johanna von Württemberg (Cat. H5, Fig. 33), who died on 5 March 1679. The woman is portrayed wearing a maiden wreath on her head, made of green leaves interspersed with white beads (Neumann (ed.) 2007: 208). Hanibal Gustaf who died in January (Cat. N19, Fig. 25), whose portrait is kept in Skokloster Castle, holds in his hands a bouquet of probably artificial red flowers supplemented with white pearls. These images can be categorised as representations of the funeral nuptial (in German *Totenhochzeit*), as indicated by the festive white attire of the portrayed persons and the presence of maiden wreaths. The arrangement of the bodies emphasised the innocence of the deceased and referred to the marital symbolism.

There are few cases of well-preserved, botanically examined bouquets that were made entirely of natural plants. As in the grave wreaths, the bouquets mainly featured evergreen plants such as boxwood, rosemary, hyssop, myrtle, sprigs of orange tree and oregano. Bouquets of rosemary (*Rosmarinus officinalis* L.) were discovered in the crypts of the Church of St Francis of Assisi in Kraków (Cat. J41, J42).

In the hands of an anonymous child buried in the bishops' crypt beneath the Archcathedral in Przemyśl (Cat. J258) was a bouquet made almost entirely from shoots of oregano (*Origanum vulgare* L.). The botanical sample from bouquet contained seeds, fruits, flowers and four fragments of flowered shoots of oregano, and a plant that could not be identified. The sample also contained a single seed of ragwort (*Senecio jacobaea* L.). It may have been displaced from a cushion in which a significant number of remains of this plant were recognised, or the ragwort may have been collected incidentally along with *Origanum vulgare*. The bouquet was tied with string (Pińska 2012: 8).

Remains of five bouquets of natural plants were found, arranged around the body and on the corpse, in the coffin of Hans Andreas Nordborg (Cat. C2), who died in April 1694, and is buried in the crypts of St Olaf Cathedral in Helsingør. The first sample contained mainly stems without leaves and wood shavings, possibly from the filling of the coffin. Furthermore, the plant remains included common hop (*Humulus lupulus*), numerous fruits of common mallow (*Malva silvestris*), flowers and seeds of oregano (*Origanum vulgare*) and seeds of hyssop (*Hyssopus officinalis*). The second of the bouquets was probably made of the stems and flowers of oregano (*Origanum vulgare*). Another of the bouquets consisted of hyssop (*Hyssopus officinalis*). A single *Sonchus* seed was also found in the sample which possibly was an accidental inclusion. Although finds of various *Sonchus* species are relatively common in modern burials. The fourth sample contained flowers and seeds of hyssop (*Hyssopus officinalis*) and flowers of oregano (*Origanum vulgare*). The last sample which was the most diverse, contained wood shavings, hop cones (*Humulus lupulus*), three grains of barley (*Hordeum vulgare*), pea seed (*Pisum sativum* L.), capsule and seeds of common rue

**Fig. 33.** *Anna Johanna von Württemberg – posthumous portrait*, 1679, Stuttgart Württembergisches Landesmuseum

(*Ruta graveolens* L.), juniper berry (*Juniperus communis* L.) and flower of hyssop (*Hyssopus officinalis*). The plants in sample five most likely came from the lining, apart from hyssop, which also occurred as a component of the other bouquets in this burial, and could be displaced from one as well (Karg 2001: 134-135). Ann Belfour (Cat. C13) who died in November 1793, was buried in the same crypt. The remains of bouquets were found beside her body, on the bottom of the sawdust-covered coffin and on the corpse. Identified among the plants were twigs of boxwood (*Buxus sempiverins*) with which the corpse had been covered, two grains of common rye (*Secale cereale*) and a seed fragment of common corn-cockle (*Agrostemma githago* L.). The rye and common cockle which is a weed that grows in winter crops, came from the lining of the coffin. Inside the shroud was a bouquet of plants from the cabbage family (*Cruciferae*), probably madwort (*Alyssum* L.). The genus name *Alyssum*, comes from the Greek – 'a' meaning negation and 'lyssa' meaning madness. The name is the result of a belief that these plants are a cure for insanity, serving as a sedative and soothing anger (Karg 2001: 135).

A bouquet containing hop (*Humulus lupulus* L.), lemon balm (*Melissa officinalis* L., Fig. 34), field sowthistle (*Sonchus arvensis* L., Fig. 35) and chickweed (*Stellaria media* (L.) Vill.) was discovered in the coffin of a child in the Church of Our Saviour in Copenhagen (Cat. C16).In another of the burials explored at the same site (Cat. C19), the bouquet deposited at the chest level of the adult person consisted of plants from the Labiatae (*Lamiaceae*) family and brassica (*Brassica* sp.) genus.In Finland, a grave bouquet made of blueberry, lingonberry or heather branches was discovered in a church in Espoo (Cat. E11). Remains of bouquets composed of violets (*Viola* L.), saltbush (*Atriplex* L., Fig. 36) and agrimony (*Agrimonia* L., Fig. 37) were identified in the Grote Kerk in Alkmaar (Cat. G15, G16). The bouquet shown in the hands of Gulovia Olai in her posthumous portrait from the Revsund parish church in Sweden (Cat. N6) may also have been composed of wildflowers. The only archaeological find confirming the use of 'ornamental' flowers to create bouquets is probably the finding from the church of St James in Toruń (Cat. J13), made of poppies and carnations (Noryśkiewicz 2020: 131--143; Sulkowska-Tuszyńska 2022: 117).


**Fig. 34.** Lemon balm (*Melissa officinalis*)


**Fig. 35.** Field milk thistle (*Sonchus arvensis* L.)

Bouquets of natural plants were also discovered in the private crypt of the Schlabrendorff family in the cathedral in Brandenburg an der Havel. The burial of an unknown by name, 5.5-month-old girl from the von Oppen family (Cat. H37), buried in September 1707, contained a bouquet of the blossoms, fruit and branches of unspecified citrus and myrtle. The unspecified flowering plant and myrtle were identified also in the bouquet from the coffin of Karoline Louise Adolphine Freiin von Danckelmann (Cat. H39), who died at the age of 11 in April 1794. It was deposited on the right side of the body, on the girl's chest. The most diverse floral composition characterises the bouquet from the coffin of the 72-year-old Karoline Friederike Wilhelmine von Schlabrendorff, née Ehrenberg (Cat. H41), who died in January 1835. The bouquet was made of bitter orange leaves (*Citrus ef. aurantium* L.), sweet orange leaves and fruit (*Citrus ef. sinensis* (L.) Osbeck), oak leaves (*Quercus* sp.), a sprig of myrtle or olive and the blossoms of the globe amaranth (*Gomphrena globosa* L.).

Globe amaranth is a cultivated ornamental plant native to Central America. It was valued for the vivid colours of its flowers, which it retains when dried. Flowers of globe amaranth have also beeb used in medicine. Perhaps it was the dried gomphrena blossom that was incorporated into the bouquet, as Karoline Friederike's funeral took place in January. Citrus, olive trees or myrtle could be grown in private conservatories. Oak leaves, on the other hand, used to be collected for household, culinary or medicinal purposes (Diane 2004: 101-104).

A bouquet of roses and orange blossoms is depicted in a posthumous portrait of the son of the Grand Chancellor of Lithuania, Christopher Sigismund Pac and Clara de Mailly-Laskaris, made after 1661 (Cat. I1, Fig. 38). The child who died after surviving for a day, is shown on a red velvet cushion and mattress, with a bouquet in a vase at his side.

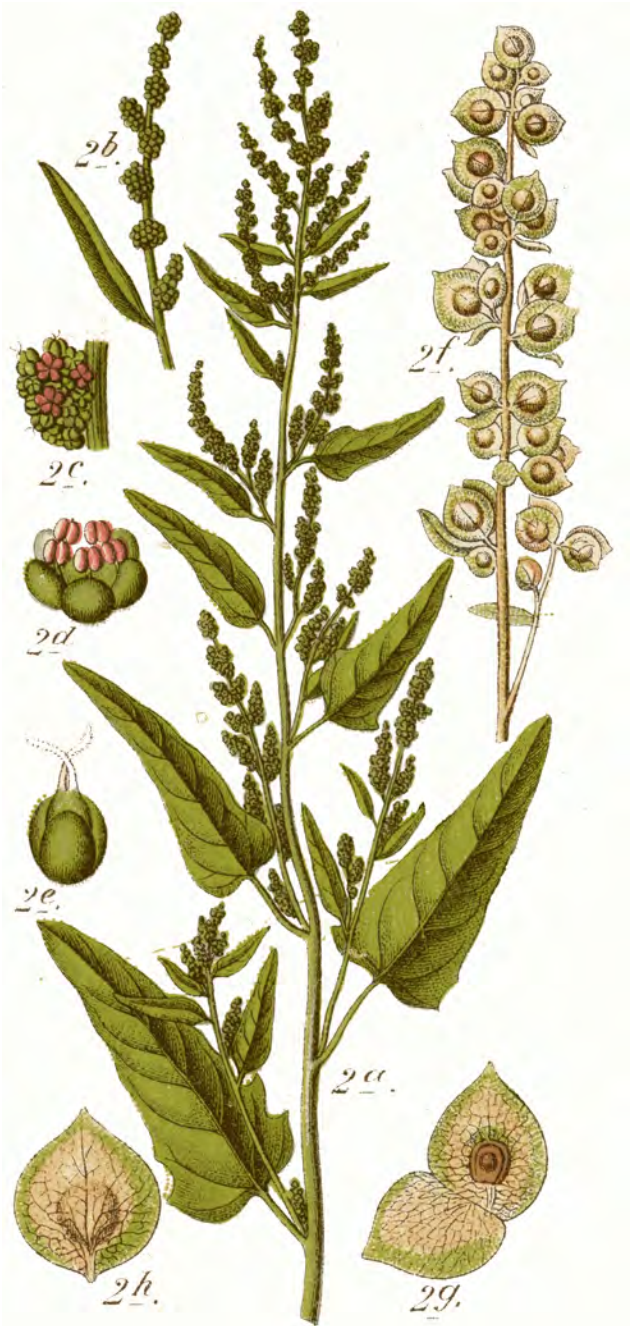


**Fig. 36.** *Saltbush (Atriplex L.)*

A bouquet of medicinal and aromatic plants had a protective function, helping to mask the smell of decay. Small bouquets have been part of clothing since the Middle Ages. In Western European languages, the names of bouquets worn as 'ornament to the nostrils' (nosegay) date back to the 15th century. They served to combat bad smells in everyday life and for protection during epidemics.


**Fig. 37.** *Agrimony (Agrimonia L.)*

The symbolic significance of the bouquet in paintings is equal to that of the flowers, from which it was created. Bouquets were depicted in modern still lifes expressing the concept of vanitas, often surrounded by other symbols of transience, such as skulls, shells, musical instruments, notes, candles, soap bubbles, insects or mice. Bouquets were shown on tombstones, mainly of children, and also in these representations they appear as symbols of futility. In the posthumous portrait of nun Catharina Margaritha from Trnava (Cat. L4) in Slovakia, a symbolic bouquet with a still life containing vanitas motifs is shown in the background of the painting, alongside real coffin bouquets arranged on a cushion.

**Fig. 38.** *Posthumous portrait of the son of the Grand Chancellor of Lithuania Christopher Sigismund Pac and Clara de Mailly-Laskaris*, 1661, Kaunas, Pažaislis monastery, currently: National Museum in Warsaw

Plants tied in bundles or bunches, scattered unevenly over the dead bodies, are also discovered in coffins. The bundles of herbs were not likely to have had a decorative function. They probably served to preserve and aromatise the body or protect the dead against evil. The bundles of herbs were provided for the last Dukes of the Mazovian line of Piast dynasty buried in Warsaw (Cat. J182, J183). Both died at the age of 24, Stanisław in 1524, while his younger brother Janusz III 2 years later. Their bodies were covered profusely with herbs, some of which were bound together in bundles. Prince Stanisław was laid to rest on a layer of lime, which filled the bottom of the coffin. The Duke's head was supported on a cushion of herbs. A layer of organic matter about 5 cm thick was found on the corpse, consisting of the remains of thyme (*Thymus*), chamomile (*Matricaria*), mugwort (*Artemisia*) and, to a lesser extent, shepherd's purse (*Capsella*). Lime was also observed in the coffin of the second brother. The plants from Janusz's coffin included again thyme (*Thymus*), chamomile (*Matricaria*), mugwort (*Artemisia*), shepherd's purse (*Capsella*), plus hop (*Humulus*), lamb's-ear (*Stachys*) and plants of the umbelliferous family (*Apiaceae*) (Pela 1997: 24). The choice of aromatic plants which according to herbaria were drying and warming, considered medicinal or magical, along with use of lime, indicates the hygienic purpose of the coffin furnishings.

In the crypts of a church in Berlin-Mitte, bundle-bound shoots of running clubmoss (*Lycopodium clavatum* L., Fig. 39) were found. The find is dated to the 18$^{th}$-19$^{th}$ century (Cat. H27). The clubmoss was called *Hexenkraut* ('witch-wort') in Germany, due to the fact that it was formerly used for protection against spells (Wittkopp 2015: 58; Ströbl and Vick 2014). Clubmoss is found in thickets and pine or mixed forests. It belongs to poisonous plants. Spores of the clubmoss were used to produce medicinal powders and pills ((Polakowska 1986: 186). It was also formerly used to decorate Easter palms prepared for Palm Sunday.

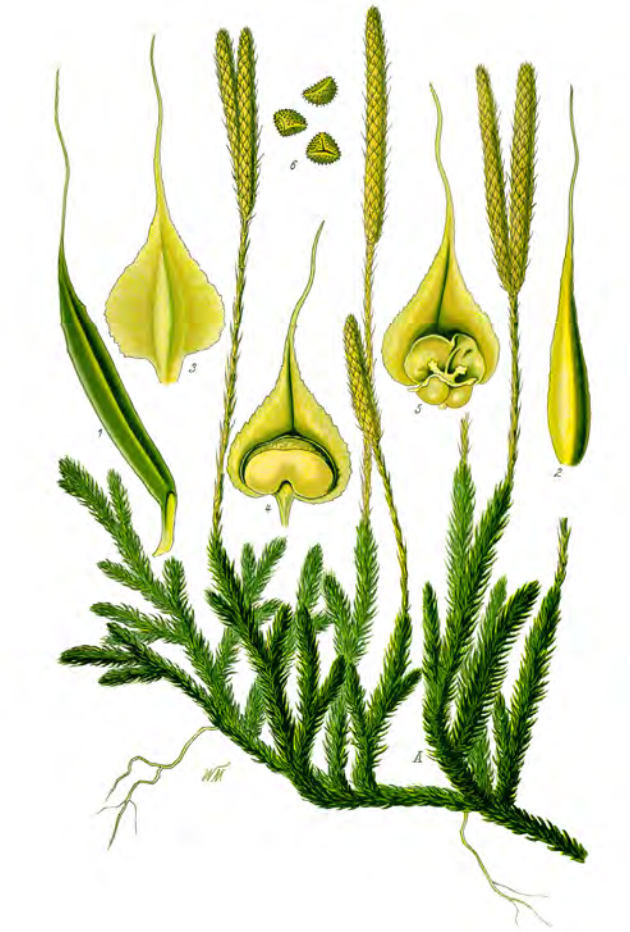

**Fig. 39.** Common club moss (*Lycopodium clavatum*)

## 3.4. Wreaths and grave crowns

Grave wreaths and crowns were placed in the coffins of children and unmarried adults of both sexes. Grave wreaths, the equivalent of which are wedding wreaths, were made mainly of evergreen plants associated with marriage. The funeral of a maiden or bachelor became an opportunity to complete his life's journey through symbolic nuptial which in German literature is referred to as *Totenhochzeit*.

Wreaths derive from ancient or medieval traditions, folk piety, the transformation of Catholic customs involving the decoration of churches and images of saints into private rituals developed after the Reformation, or the culture of modern cities, where they were an important identifier of social roles and an instrument of moral teaching. They could also serve as a substitute for Catholic rites for unbaptised children. According to the *Rituale Romanum*, reissued in 1614, decoration of the bodies of the bodies of deceased children with flowers, was allowed deceased children with flowers, was allowed. Baptism was a prerequisite for a deceased child to be buried with a wreath. In 1653, the Bishop of Regensburg, Franz Wilhelm von Wartemberg, in the instructions of the church synods on children's burials (*De Exequiis Parvulorum*), recorded: "If a young or newly born, baptised child dies, a wreath of flowers or fragrant and scented herbs is placed on his head as a sign of his bodily purity and youthful innocence [...]." A pastor from Friedersdorf near Görlitz stated that: "when a child dies, his godmother sends him a crown or money instead; besides, she gives her godchild a wreath for his head and a bouquet for his hands [...]" (Stankiewicz 2015: 126).

Clerics, nuns and priests were sometimes buried with grave crowns (or wreaths from First Mass). The crowns discovered in the crypt at St John's Benedictine Monastery in Müstair, Switzerland, were not dissimilar to the secular examples found at the same site. Most were constructed with a hoop of iron, wrapped with decorative elements of non-ferrous metals and fabrics, to which bouquets of artificial flowers and wire braids were vertically attached at equal intervals. The artificial flowers were made of iron wires and also of non-ferrous metals, fabrics, paper and glass beads (Cassitti 2018: 96-97). In the crypt of St Paul's Church in Antwerp, adults (presumably priests) and children were buried wearing wreaths (Veeckmann 1997).

Nuns were portrayed after death wearing a habit, a veil and a floral crown on their heads or with flowers arranged around their bodies. The tradition of depicting deceased nuns adorned with tall floral crowns also developed in Spain, during the Habsburg reign. From there, the custom spread beyond Europe to the female orders in the Americas: New Spain (now Mexico and the southern states of the USA), Peru, Chile, the New Kingdom of Granada (Colombia, Panama, Venezuela). The flowers in the portraits of deceased nuns can be linked to Catholic virtues – the red rose signifies extreme mortification and love of God, the jasmine stands for simplicity, the carnation for obedience and penance, the tuberose and lily for prayer and chastity (Gómez 2016).

The wreath could also be given to adults who had undergone prolonged suffering before death. Sometimes they wove a wreath for themselves, as did chronically ill Anna Vasa, sister of Sigismund Vasa, King of Poland (Stankie-

wicz 2015: 130). Placing a death crown on the head of the deceased was also a regular element of the funerals of members of guilds of certain professions, e.g., in Upper Austria this custom applied to blacksmiths (Sörries 2007a: 251).

In the literature, various forms of headgear are assumed to serve the same function. The wreath which is the simplest of these, consists of a decorated hoop. Grave crowns, on the other hand, are considered more spatially complex constructions (Drążkowska 2007a: 492). Julianne Lippok also distinguishes the diadem. Textile caps, onto which decorative elements were sewn, could have a similar function to grave crowns. However, the cap was part of the secular female attire and the examples discovered in cemeteries may not have been exclusively associated with burial (Lippok 2011: 117-119). The use of filigree wire and textile ornaments, which are also found in the construction of wreaths, can be taken as a criterion to distinguish burial caps (Lippok 2009: 44). Mixed forms also existed, for example, in some cases grave crown was fixed to the headpiece (Diane 2004: 101-104). The location of the wreath or crown could be arbitrary within the grave, they were not only placed on the head, but were also sometimes arranged on the body, bedding, inside pillows, on the coffin lid and even deposited in wooden boxes or ceramic vessels near the body (Kühtreiber *et al.* 2014: 125). In Riesa, wreaths were placed around wrists of the deceased child (Alterauge and Hofmann 2020: 85).

Wreaths and grave crowns were created from various materials of organic and inorganic origin, which were attached to a hoop made of metal, wood or string. Textiles, metal, glass, bone, wood, stones, shells, natural and artificial pearls which were usually formed into the shape of flowers and leaves, were attached to the rim. Parts of natural plants were also woven into wreaths. The remains of natural plants used to construct garlands are rarely preserved in a state that allows their identification. However, wooden bases of grave wreaths are occasionally examined for species identification. Artificial flowers, made from copper alloy wires, paper and fabric, are usually preserved residually and offer little opportunity for interpretation and comparison. In all probability, the grave wreaths would have to be considered as constructions densely built up with natural green branches, such as are depicted in the iconography, as fragments of natural, woody plant stems are often preserved inside the stalks of the metal flowers.

Grave wreaths were mainly widespread in German-speaking areas of Europe and in the Netherlands, but were also found in Britain, France, Scandinavia, Poland, the Czech Republic and Russia. In the European rural areas, at the turn of the 19th century, they were placed in the coffins of those, who died young – maidens and bachelors. The custom has been described by ethnographers, in addition to the areas mentioned above, also in Romania, Belarus, Ukraine, the Balkans, Moravia and Slovakia (Fischer 1921: 296; Biegeleisen 1930: 154).

Grave wreaths and crowns are preserved in some churches and museums, also in Poland – in Pomerania (Bonowska 2004: 69-71). They were commonly used at funerals from the second half of the 16th century to the mid-20th century. One of the youngest reports of a funeral of person with a wreath from Lower Lusatia in Central Europe dates from the 1950s (Lippok and Melisch 2012: 27). Wreaths and crowns were used by Protestants, Catholics and Orthodox worshippers. Raimund Sörries, in his introduction to the catalogue of the exhibition *Totenhochzeit mit Kranz und Krone* at the Museum of Sepulchral Culture in Kassel, noted that objects of this type were mainly preserved in areas of Germany where Protestant denominations were dominant – Hesse, Thuringia, Lower Saxony, Brandenburg and historic Franconia. In Catholic Bavaria and Austria, they were used much less frequently (Sörries 2007b: 9). In the lands of modern Poland, the disproportion is also apparent. Most relics of wreaths and grave crowns come from large and medium-sized towns in northern and western Poland and from Protestant cemeteries. However, few grave wreaths have been found in Catholic child burials from outside the area.

According to Juliane Lippok, the continuity of the custom between the Middle Ages and the modern era is not sufficiently documented (Lippok 2009: 79). In medieval sepulchral art, depictions of people with their heads crowned are well known, but this does not prove that wreaths were placed in graves at that time. Nevertheless, there are findings of medieval burials of young persons in Poland with head ornaments described as diadems or headbands, decorated with metal appliqués (Cat. J4, J6, J11, J16; Drążkowska 2012: 117-118).

Ernst Helmut Segschneider considered the relation on burial of 16-year-old Werner of Oberwesel as the earliest historical evidence for grave wreath use in Germany. The boy who was the murder victim in the 13th century, was buried with his head crowned in the chapel of St Kunibert in Bacharach. The wreath from the story of Werner von Oberwesel's burial can be considered related to the martyrdom crowns, while it is unlikely to be identical to the later *Totenkrone* (Segschneider 1976: 16).

In the early centuries of Christianity, wreaths became attributes of martyrs. The crown of martyrdom is a symbol of triumph over sin and death, a reward for the observance of Christian duties, which is confirmed in the Scripture: "Blessed is the man who remains steadfast under trial, for when he has stood the test he will receive the crown of life, which God has promised to those who love him" (James 1:12). The wreath as a crown of virtue (German *Tugendkrone*) is also an attribute of the martyrs, whose physical virginity was particularly accentuated (Widmann 1987: 44-46).

Otto Lauffer, in the 1916 article on the subject of grave wreaths, pointed to the tombstone of the minnesinger Heinrich Frauenlob from Mainz Cathedral from the 14th century, as the oldest example of grave garland (Lauffer 1916: 230). The tombstone has deteriorated, but its 18th-century description reveals that it depicted the deceased with a crown or wreath on his head and his arms decorated with flowers: "*...in quo repraesentatur caput corona seu potius serto cinctum; collum et humeri floribus circumornati*" (Bourdon 1727: 243). The burial representation of Heinrich Frauenlob draws on the ancient tradition of honouring poets with a wreath, which was revived in the 13th century Europe.

The earliest grave crowns found in Europe are probably relics from the 15th century from the cemetery at the House of Beguines in Haarlem, the Netherlands (Williams 2016: 190). The earliest written reference to grave wreaths comes from Cologne in Germany, dating to the 16th century. The record specifies that it concerns wreaths deposited in the graves of girls buried "like virgins" (Segschneider 1976: 17). In the 16th century, tombstones with representations of the deceased wearing wreaths or crowns on their heads became increasingly common (Seib 2007: 137).

Wreaths and headbands were part of secular dress in the Middle Ages. Diadems in the form of metal or leather bands decorated with metal fittings were part of women's clothing. In the early Middle Ages, an uncovered head, headband or wreath were appropriate only for unmarried people. Married women usually hid their hair under linen veils (Drążkowska 2012: 26). From around the mid-13th century onwards, diadems appeared in art representations of young women, saints and biblical figures, also on tomb portraits. These images are associated with elite culture, but finds of tin and copper diadem fragments from the 13th-1st half of the 14th centuries in urban areas indicate their diffusion to the lower strata of society (Sawicki 2014a: 219-220).

In the 14th-15th centuries, young people of both sexes were allowed to wear garlands, diadems or decorative headbands (Drążkowska 2012: 116-117). The wreath, placed on the head as an element of costume, was reserved exclusively for virgins and bachelors. This was guaranteed by local laws (sumptuary laws, *Kleiderordnungen*), which forbade wearing such ornaments to those certainly not entitled to do so – when married and with children (Widmann 1987: 49). Crowns and diadems were gifts offered on the occasion of engagements, weddings or births. They are considered love gifts associated with courtly and chivalric culture (Wachowski 2013: 32). Diadems could be used during secular or religious ceremonies. Among many occasions, during which wreaths were used, were also carnival and harvest festival celebrations.

A headdress in the form of a headband, diadem or wreath in the Middle Ages became an attribute of people entering into marriage. A special type of wedding wreaths developed which were placed on the heads of the newlyweds (Widmann 1987: 44-46). The wedding ritual, despite the recommendation of marrying in the presence of a priest, usually consisted of an agreement between the newlyweds (matchmaking), who shook hands and exchanged green wreaths. They would then place the wreaths on their heads and wear them during the feast (Korczak 2015: 36).

So-called wedding crowns appeared in the 12th century in court circles and spread around the 14th century. Crowns and similar head ornaments, considered an indicator of higher social position, were imitated by the inhabitants of cities (Sawicki 2014b: 50).

The construction of the metal diadems was openwork, allowing the sprigs of natural herbs to be inserted easily, creating green constructions known from iconography. The decoration of the metal frames often alluded to floral motifs (e.g., rosettes, lime leaves). The herbs used to prepare wreaths worn on the head additionally served therapeutic and protective functions (Widmann 1987: 49-50).

The customs associated with the differentiation of the attire of the married and unmarried women in the Middle Ages, especially headdresses, are seen by researchers as the ideological origins of the early modern custom of crowning the heads of deceased virgins. The origins of the so-called 'nuptials during the funeral' (German *Totenhochzeit*) were seen in early medieval funeral ceremonies, also pre-Christian.

In the early modern period, wreaths were still an important element of weddings. They were placed on women's heads after the so-called 'unbraiding', in the last evening before wedding. Houses, in which the brides lived, were decorated with a green garland. Maidens sometimes grew the herbs for the wreaths themselves – rosemary, rue, lavender and myrtle. Maiden wreaths, and so-called wedding wands, were made by the brides before the wedding. During the wedding, the young exchanged wreaths or wedding rings. The latter replaced the use of bridal wreaths in the 18th century (Ferenc 2015: 136).

Religious images of the crowned Virgin Mary certainly played an important role in the formation of wedding crowns. In some regions of Europe, brides were given a crown of a statue of the Virgin Mary during the wedding ceremony (Widmann 1987: 71). In Germany, England and France, brides who did not keep chastity until marriage, were punished by being forced to wear a wreath of straw in public. A connection between the custom of wreathing heads as a sign of chastity and the cult of holy martyrs should also be considered probable (Lippok 2017: 94).

Grave wreaths and crowns were embellished with wares made of fine gold wire, silver wire, gold-plated, silver-plated or tin-plated copper alloy wires and threads braided with strips of metal (*Leonische Waren, Lyonische Waren, Leonisches Gold,* 'false haberdashery') (*Leonische Waren* 2005). Among the forms of wire ornaments, floral motifs predominate – flowers, leaves, flower stamens, fruit, and buds which form groups resembling bouquets or small branches. These are undoubtedly floral forms, but it is usually impossible to determine what plant species the wire products imitate.

An attempt to classify the ornaments was undertaken by Julianne Lippok. On the basis of an analysis of fragments of grave crowns from Brandenburg, she distinguished five basic patterns which were repeated in 90% of the material she examined. These include four-petalled flowers with slightly elongated oval petals, sometimes pointed. Each petal is constructed from a single wire forming a frame on which the fabric was originally stretched (ornament A). The second type, ornament B, are flowers with round petals, filled inside with a spiral of wire. The next type, ornament C, are oval or pointed flowers made of wire braided irregularly. Large holes can be seen between the loosely routed wires. The next type of ornament is a flower made of five to eight oval segments fastened around a single wire coiled in a circular shape (ornament D). The last type (ornament E) comprises flowers made of a flat wire, with pointed petals that are layered, so that each successive ornament is smaller than the previous one (Lippok 2009: 20-21).

Ornaments resembling the aforementioned types are also found in wreaths and crowns found in Poland (Grupa *et al.* 2015: 119). Crowns and grave wreaths that were created from standard ornamental motifs were rather not individualised creations (Lippok 2009: 20-24). They most likely could not have been made by the godparents, family or peers of the deceased. On the other hand, garlands plaited from natural plants or cut from cloth may have been created on an *ad hoc* basis by relatives or mourners.

The state of present research on death wreaths from the lands of Poland indicates their significantly higher concentration in areas inhabited in the past by German-speaking and Protestant populations in greater numbers. Research on wreaths found in the north of Poland reveals their similarity with such objects from north-western Germany (Nowak 2013-2014: 216).

The death crowns found in Toruń show a stylistic resemblance, suggesting their provenance in one workshop. On the other hand, the crowns discovered in the church of St Nicholas in Gniew are more similar to death crown

relics from Gdańsk (Grupa *et al.* 2015: 120). In Gniew, wire flowers from child's coffin in the central nave of the Church of St Nicholas, were representing two types – slender with ellipsoidal petals, and with round petals (Kolaska *et al.* 2020, 62, 63). Among the unpublished finds from the cemetery at St Elizabeth's Church in Wrocław, all wire ornaments are constructed in the same way (Fig. 40). Four-petalled flowers made of a spiral wire are topped with multi-petalled flowers of smaller diameter, along with a bundle of stamens, and tied into the form of a tall fleuron. Each is decorated with a glass pearl or metal pendant. Analogous in design petal details were applied to wreaths excavated in the cemetery at the Church of St Mary Magdalene in Wrocław (Wojcieszak 2010: 160). This suggests the presence of workshop for artificial flower decoration in the city.

Artificial flowers had been produced in monasteries since the Middle Ages. Filigree wire products, including flowers and borders, known as false haberdashery, were produced from the 15th century in monasteries in Western Europe. They were used for decoration of images of saints and altars. Unfortunately, it is uncertain which professional groups were involved in making artificial flowers in the cities, as the fields of activity of haberdashers, hat makers or manufacturers of gilded wires may have overlapped (Grupa 2015: 52). Over time, manufactures were established to produce artificial flowers on a major scale. In the 18th century, metal-textile bouquets became a fashionable wardrobe accessory. According to Gottlieb Corvinus Amaranthes, in the cities there were specialised manufacturers of wedding wreaths who also produced decorations intended for graves (Corvinus 1715: 386-387).

The modesty of burial wreaths was required by the funeral legislation of Protestant cities. In Szczecin, due to the high cost of acquiring them, artificial flowers at the funeral were only allowed in winter (Kizik 1998: 89).


**Fig. 40.** Artificial flowers from the cemetery at St Elizabeth Church in Wrocław, photog. T. Gąsior

In the 19th century, techniques for making ornaments from filigree wire were popularised in the countryside with the publication of manuals for their domestic production. From this moment on, folk art objects, such as picture borders, costume details, wedding garlands and grave crowns, began to be formed from false haberdashery (Lippok 2007: 257).

In the literature, attempts are made to determine the species of flowers discovered in graves and depicted on tombstones. Among these are depictions of plants, biological equivalents of which are representations in burials very rarely or never. In the construction of a wreath from Gniew (Cat. J242), the author of the study recognised artificial carnations or tulips (Nowak 2013: 214; Grupa and Nowak 2017: 164). Anna Drążkowska in her text on finds from St John's Church in Gdańsk (Cat. J241), mentioned several species. Flowers made of blue satin silk have been interpreted as blossoms of cornflower (*Centaurea cyanus* L;) or common chicory (*Cichorium intybus* L., Fig. 41). Smaller specimens with rounded blue petals were identified by the researcher as forget-me-nots (*Myosotis* L.; Drążkowska 2007a: 492-493). In a burial of 3-years old Antonina Bronisława Zaolzicka from Radzyń Podlaski, who died in 1838, a red staining of the skull might indicate the presence of unpreserved wreath made of artificial flowers. Such flowers fixed to iron stems were found in girl's coffin (Dabralet *et al.* 2022: 95).

Probably the artificial floral compositions, with which wreaths and crowns were decorated, were intended to be recognisable as flowers, but were not necessarily identifiable with particular species. It should also be remembered that the basis of the biological classification system used today was only introduced in the second half of the 18th century. From a modern perspective, the difference between plant species is based on their physiology and genetic structure. The users of the former nature symbolism did not operate with the same concepts and categories in the classification of plants. Furthermore, the research of plants had a different purpose, namely the pursuit of clues to divine mysteries and undisclosed relationships existing between elements of nature and cultural creations. It can be assumed that the symbolism of the form ('wreath/crown' – headdress) was superior to the symbolism of the plants from which it was made. It is also likely that the species of flowers were not as important as their colour and context of use. The daughters of King Philip III of Spain – Maria (who died in 1603) and Marguerite (who died in 1617) – were depicted on their posthumous portraits wearing wreaths on their heads made of green branches with red and white flowers (Morel 2003: 28). In the case of the older one these are red and white roses, while in the younger one it is red roses and white lilies. The symbolism of the white rose and the white lily is very similar, associated with Virgin Mary's virtues, especially chastity and modesty. This is probably why the white rose and white lily were treated as substitutes in the post-mortem portraits of the girls.


**Fig. 41.** Common chicory (*Cichorium intybus L.*)

On the basis of the available data, it can be concluded that natural flowers were rather not used for grave wreaths. Usually, artificial flowers that imitated natural plants or

represented fantastic designs were chosen. Among natural plants, twigs of evergreen and aromatic plants, mainly herbs of Mediterranean origin, were used to make wreaths. The recurrence of plant species used for wreaths and the similarity of the characteristics of the preferred plants are apparent. The probable reason for not using cut flowers for the construction of wreaths is their perishability and limited availability for most of the year. Wreaths and grave crowns in the 17th century certainly functioned as markers of prestige, as evidenced by the many restrictions of funeral law regulations (Kizik 1998, 89-90). An important feature of the artificial flowers has been the prolonged durability necessary when the body of a deceased person was exposed to public view.

Artificial flowers may have been considered to be superior to living flowers. Their use opened up the possibility of composing decorations freely, according to modern symbolism, without necessity to rely on seasonally available plants. Equally, on tombstones, the attributes and appearance of the deceased were subjected to stylisation, so that they conveyed specific symbolic content. In the 16th and 17th centuries, considerable fascination arose with nature which was perceived as a rational creation subordinate to man. European art of the period featured numerous depictions of animals and botanical specimens. They were a reaction to the trend to collect *naturalia* and their artistic representations that emerged at European courts. Menageries, aviaries, collections of curiosities and botanical gardens were established at the estates of the aristocracy and at universities. Court artists were tasked with documenting the animals and plants gathered, and often owned botanical gardens and nature collections themselves. Sketches and studies of nature were used to create larger painting compositions. Sometimes court painters travelled to enrich their collections with illustrations of rare botanical and zoological specimens. Rich bourgeoisie also decorated their homes with still lifes (Ziemba 2005: 123-126). Nature, however, gained value for people living in the 17th century if it was filtered by human experience and invention. Therefore, floral painting compositions could incorporate species that did not naturally occur together and flowered at different times of the year.

The most frequently mentioned plants used in wreaths include common myrtle (*Myrtus communis* L., Fig. 22). At Frauenkirche in Dresden, leaves of common myrtle and cloves (*Syzygium aromaticum*) were found near a crown made of silver and iron wires, dating from 1714 (Sörries 2007a: 251). A myrtle wreath bound with a silk cap was placed on the head of a 5-month-old girl buried in 1707 in the crypt of von Schlabrendorff family in the cathedral of Brandenburg an der Havel (Cat. H37; Diane 2004: 101-104). A wreath of myrtle and carnations was depicted on the head of the deceased 1.5-year-old Karl Zdeněk of Žerotín whose posthumous portrait from around 1620 is kept at Velké Losiny Castle in Moravia (Cat. K7, Fig. 18; Stankiewicz 2015: 104).

Common myrtle (*Myrtus communis* L.) is a dense evergreen shrub characterised by small, single, ovoid-lanceolate, dark green leaves and small, white flowers. It is native to the Mediterranean region, North Africa and the Western part of Asia. Thanks to its essential oil content, myrtle shoots, flowers and leaves emit intense fragrance. Myrtle has antibacterial and anti-inflammatory properties, besides repels and kills insects (Toauibia 2015: 151). The myrtle was first introduced to Central Europe in the 16th century. In early modern period Western Europeans also experienced a rediscovery of a plant that had been forgotten during the Middle Ages. Myrtle began being used in wedding ceremonies, probably gradually replacing the rosemary (*Rosmarinus officinalis*) which was previously preferred for this occasion. The myrtle wreath on the bride's head symbolised purity. To this day, in some religious orders, it is still placed on the head of the candidates during the rite of vesting – handing over of the religious habit to a new member of the community (Rotter 2015: 208). The cultivar (*Myrtus communis* L.) bears the customary German name *Brautmyrte*, as opposed to *Totenmyrte*, which was intended for wreaths for the dead (Bärnthol 2003: 51). A wedding myrtle wreath with the inscription: 'Brauth Kranz d: anno 1748 Mens: Maj: die 23' was deposited in the crypt under St Michael's Church in Vienna (Cat. A5). Myrtle wreaths were found on the heads of women buried in the Admiralty Church in Karlskrona (Cat. N1).

Common myrtle was also included in bouquets and coffin decorations. Myrtle in post-mortem portraits and

tombstones was sometimes depicted in a stylised form, making it indistinguishable from rosemary. In addition to myrtle, other popular wedding plants, such as rosemary and boxwood, were mainly used for grave wreaths (Kapeluś 1989: 57).

**Fig. 42.** *Prince Moritz von Sachsen-Zeitz*, 1653, Zeitz, Museum Castle Moritzburg

Probably the oldest early modern grave crowns, dating to the 15th century, have been discovered in the cemetery at the House of Beguines in Haarlem in the northern Netherlands (Cat. G14). They consist of metal hoops decorated with rosemary springs. Rosemary leaves with relics of metal hoops were also discovered in burials from the 17th--18th centuries (Cat. G12) in the cemetery at the Nieuwe Kerk in Haarlem (Williams 2016: 190). A simple wreath from the 18th century (Cat. J13) with probably rosemary branches attached to the rim by a string was found during excavations in the Church of the Assumption of the Blessed Virgin Mary in Toruń (Drążkowska 2006: 211). In the Church of St Michael in Vienna, a wreath made of an iron hoop with rosemary sprigs, paper flowers and decorations made of thin metal sheet was discovered (Cat. A7).

Rosemary wreaths appear in large numbers in paintings and sculptural representations from the 17th century. At that time, a type of post-mortem portrait of the deceased developed, in which wedding symbolism was particularly emphasised (Knöll 2009: 252). A wreath of myrtle or rosemary is worn on the head by nine-year-old Caspar von Uchtenhagen on his post-mortem portrait (Cat. H35, Fig. 4). The painting is the oldest representation in Brandenburg showing the deceased wearing a grave wreath of plants. It dates from 1603 (Schuchard 2007: 241). The branches in the wreath on the child's head were attached densely to a stable frame and interwoven with small flowers, perhaps rosemary or small rose blossoms. Similar stiffened constructions of green rosemary sprigs are shown in two post-mortem portraits of several-month-old boys of the von Sachsen-Zeitz family from the mid-17th century (Cat. H147, H148, Fig. 42).

More than thirty portraits of dead children dating from the 16th and 17th centuries are preserved in museums in Belgium and the Netherlands. Depictions of deceased children were also produced in Spain under the influence of Habsburg-dominated Flanders. Numerous portraits showing deceased children, wearing rosemary, boxwood or myrtle wreaths, date from the second half of the 17th century, for example a painting from the Groningen Museum (Cat. G17, Fig. 21). A simple rosemary wreath adorns the temple of a deceased newborn baby in a 17th-century quadruple portrait of the Costerus siblings (Cat. G19). Small rosemary wreaths were placed on the body of the child depicted in the portrait kept at Velké Losiny Castle in Czech Republic (Cat. K6). A small garland of myrtle or rosemary was depicted on the head of four-year-old Anna Eleonora Mielęcka in a coffin portrait from the Unity of the Brethren church in Jędrzychowice near Wschowa in Poland (Cat. J171). Green wreaths of rosemary or myrtle (?) can be seen on Silesian epitaphs, tombstones and in the family tree of the Piast dynasty in the castle in Brzeg (Cat. J187).

The association of rosemary with sepulchral symbolism can be assumed to date back to the Middle Ages. A sprig

of rosemary is held together in the hands of Count Heinrich von Sayn (Cat. H16, Fig. 28) and his daughter (?) depicted in a double grave sculpture from 1247/8 from the Premonstratensian church in Sayn near Koblenz (Neurath-Sippel 2011: 122). On early modern tombstones, rosemary sprigs are usually depicted in the hands of children and young adults.

Rosemary (*Rosmarinus officinalis* L.) occurs naturally in the Mediterranean region where it can grow up to about 2 metres (Fig. 43). In Central Europe only a cultivated form is available, and reaches smaller sizes (Kawałko 1986: 35). It flowers in March and April. The rosemary flowers are light purple, light pink or white. The leaves of rosemary are narrow and lanceolate. The leaves contain essential oil which exhibits fungicidal and bactericidal properties (Bozin *et al.* 2007: 7881-7884). When taken in large doses, rosemary can be poisonous (Nowiński 1983: 260). It is used as a decongestant, digestive stimulant, sedative and disinfectant. It can be effective against streptococci, staphylococci, scabies or body louse (Fijałkowski, Chojnacka-Fijałkowska 2009 292-293). Fuchs reports that rosemary, which is a drying and warming herb, protects against plague (Fuchs 2016: 181).


**Fig. 43.** Rosemary (*Rosmarinus officinalis*)

Rosemary arrived in Western and Central Europe in the Early Middle Ages. At that time, it was cultivated in castle and monastery gardens. It can be found on the plan of the Sankt Gallen Abbey and was also mentioned in Charlemagne's *Capitulare de Villis*. In the Middle Ages and early modern times, young people wore wreaths of rosemary. Fuchs cites *Rosmarinus coronaria* as alternative name for the plant due to the fact that it was used to make wreaths (Fuchs 2016: 181). In 16th-century Poland, rosemary was still considered to be a new plant that arrived from Italy.

The symbolism of rosemary is associated with love and marriage. Rosemary garlands were used at weddings. In Germany, rosemary wedding wreaths were made from the 16th century onwards (Lippok 2009: 30). In Poland, at the end of the 18th-19th centuries, rosemary wedding wreaths were mainly known in the Greater Poland and Kuyavia regions. The fashion for wedding wreaths spread *via* elites who, as Alicja Zemanek has demonstrated, contributed to the dissemination of plant knowledge from printed herbaria. In Greater Poland, German models were also followed. It is not known whether rosemary was cultivated in Polish villages. According to Polish ethnographer – Oskar Kolberg – brides and grooms would purchase rosemary sprigs for their wedding in the city (Kapeluś 1989: 57-58).

Boxwood (*Buxus* L.) was very often used to construct grave wreaths, its remains being one of the most abundant among grave archaeological finds. It is a fragrant evergreen shrub or a small tree. A cultivar of *Buxus sempervirens* was brought to Western Europe during the Roman period, around the 2nd century AD. Boxwood remains and wreaths have been found in Roman graves in Britain (Lodwick 2017: 145-146). Historically, boxwood was attributed with extraordinary resilience. For this reason, it was preferred to the more cold-sensitive myrtle in gardens. In Dutch, it is sometimes called palm, named for the fact that boxwood branches were blessed during the Palm Sunday celebrations. Boxwood symbolises life, vigour and faithful love which is why it was often planted in cemeteries (Szczepanowicz 2013: 75).

In a cemetery in Thaldorf (Saxony), an anonymous child was buried with a wreath made of boxwood branches. The branches were attached to a hoop made of willow twigs, tied with a silk ribbon. Boxwood garlands were

also found in two other graves in the same cemetery (Cat. H137, H138, H139; Hellmund 2006: 266).

In the grave of a child who died aged 7-10 years located in the cemetery at the former village church in Rüdersdorf-Tasdorf (Brandenburg), a wreath decorated with boxwood branches and leaves was discovered (Cat. H51; Lippok 2009: 31). In the burial of a young woman in Lublin Cathedral, boxwood wreaths were found arranged along the grave dress (Grupa *et al.* 2014: 99, fn. 274). Wreaths or bunches from boxwood, cloves, flowers and wood splinters were reported in the Cloister Church of Riesa (Alterauge and Hofmann 2020: 85).

The hoops of the wreaths were also made of boxwood, such as in the find from St Catherine's Monastery in Rostock (Mecklenburg-Vorpommern; Cat. H122; Lippok 2007: 260). At St Nicholas Church in Röbel (Mecklenburg-Vorpommern), a burial crown was discovered in the form of a silk cap (?) to which copper wire elements and sprigs with boxwood flowers and leaves were attached (Cat. H121; Schmidt 2008: 225). Wreaths with boxwood branches have been discovered in the Church of the Assumption of the Blessed Virgin Mary in Lublin (Cat. J170), in the Church of the Blessed Virgin Mary in Friedland (Cat. H115), in the church cemetery in Penkun (Cat. H120), in the Cathedral of St Peter and Paul in Zeitz (Cat. H139), and in the Admiralty Church in Karlskrona (Cat. N1). Boxwood along with crown fragments have been discovered in the Netherlands in Oldenzaal (Cat. G22), in the cemetery at the Basilica of St John in Oosterhout (Cat. G7), and at the Carmelite monastery in Aalst, Belgium (Cat. B10; Williams 2016: 187-189). In Bad Windsheim (Bavaria), in the tomb of Barbara von Reitzenstein (Cat. H12), who died in 1634, a head ornament imitating a wreath was found, decorated with sprigs of boxwood and hyssop (*Hyssopus officinalis*) (Bärnthol 2003: 51). Small bouquets of plants wrapped with wire were placed vertically, directly in the hair of the deceased.

The wreath on the head of a child (Cat. J204) buried in the crypt of the Church of the Name of the Blessed Virgin Mary in Szczuczyn (Poland, Podlaskie Voivodeship) was also made from plants associated with marriage symbolism – common rue (*Ruta graveolens* L.) and southernwood (*Artemisia abrotanum* L.) (Grupa *et al.* 2014: 102).

Southernwood (*Artemisia abrotanum* L.) is a shrub that reaches up to 1.8 metres (Fig. 44). In Poland, it is either found in the cultivated or feral forms. The plant emits a strong fragrance, due to essential oil content. Southernwood contains also a poisonous alkaloid. It has been used since ancient times as a medicine and insect repellent (Siennik 1568: 4). Southernwood is a neophyte in the territory of Poland. Its name (Polish boże drzewko – 'God's tree') is derived from the fact that it was cultivated in monastery gardens (Wajda-Adamczykowa 1989: 70).


**Fig. 44.** Southernwood (*Artemisia abrotanum*)

Common rue (*Ruta graveolens* L.) is a plant that grows wild in Southern Europe, while in Poland it is only found as a cultivated plant (Fig. 45). It contains significant amounts of essential oil, known for its antibacterial effects. In the 8th/9th century, rue spread to Central Europe with the monks (Waniakowa 2012: 51). Fuchs stated that a drink of rue seeds and wine counteracts every poison. He recommended using rue leaves against the plague, snakes and vipers (Fuchs 2016: 236). Similar opinions on the effects of rue are provided by the Polish herbaria of Marcin of Urzędów and Marcin Siennik. Marcin of Urzędów considered common rue to be a plant pungent, bitter and warming in the third degree, which removes exces-

sive moisture and air from the body (Marcin of Urzędów 1595: 270- 271). Marcin Siennik recorded that in order to exterminate a basilisk, the entire body should be covered with rue for protection (Siennik 1568: 147). Rue may have served as a wedding plant before the rosemary became more popular in Poland (Kapeluś 1989: 58). An old Polish saying 'to sow rue', found in the Polish compendium of proverbs by Salomon Rysiński from 1618, meant waiting for a candidate for a husband (Kapeluś 1989: 56).


**Fig. 45.** Common rue (*Ruta graveolens* L.)

In the south aisle of the Cathedral of St Peter and St Paul in Zeitz (Saxony-Anhalt), a tomb containing the remains of a woman (H144), buried after 1601, was discovered. On the coffin lid a garland formed of boxwood and branches of a plant from the willow genus (*Salix*) was laid (Klamm and Schulz 2012: 418).

The most common species belonging to this genus is the white willow (*Salix alba*, Fig. 47). Willow bark contains salicin which has analgesic and antipyretic effects. The wood of willow was used to make everyday objects and the twigs served in basketry. In emblematics, representations of willow illustrated the concept of infertility. In the rural areas of Poland, willow twigs were employed in wedding ceremonies (Marczewska 2002: 213-214).

A burial crown from 1791, made of willow twigs, is preserved in the church in Langen (Brandenburg). Natural branches and artificial flowers were attached to a frame made of willow twig. The crown is topped with a rod combined with bouquets of artificial flowers and upturned poppy seed heads decorated with ribbons and gold foil (Müller 2007: 11).

Poppy in folk tradition found uses as a protective plant, also during the burial (Zemanek *et al.* 2009: 221). However, it does not occur frequently in archaeological grave contexts in Europe from the late Middle Ages onwards. The poppy flower may have been depicted on early modern children's tombstones, but the five-petaled rosette is most often interpreted as an anemone or a rose. The results of a palynological analysis of a wreath made of poppies and carnation, discovered in a female burial beneath the church of St Francis of Assisi in Kraków, have recently been published (Cat. J45).

Poppy seed heads (*Papaver* L.), or other small parts of natural plants, wrapped in shiny metal foil, perhaps served as an imitation of jewels made of precious metals, pearls or beads. In Pritzen, gilded cloves were used in the construction of the grave crown (Cat. H50). Partially gilded juniper berries (*Juniperus communis*) and cloves (*Syzygium aromaticum*) were found in a crown uncovered at the Dominican monastery in Prenzlau (Cat. H49; Ungerath 2003: 131, n.d.; Lippok 2007: 259-260). Gilded cloves were also discovered in the cemetery at the cathedral in Freiberg (Cat. H104). Wreaths found in the cemetery at St Mary's Church in Neubrandenburg (Cat. H119) contained cloves (*Syzygium aromaticum*), juniper berries (*Juniperus sp.*) and artificial flowers. In Berlin grave crowns consisting of wires into which were woven gilded pumpkin seeds (*Cucurbita* L.), were discovered in two cemeteries (Cat. H31, H32, H34; Lippok 2015: 86).

Juniper (*Juniperus communis*) is a shrub or tree belonging to the cypress family (Fig. 46). Juniper produces almost black, blue wax-covered, strongly scented berries. Dried juniper berries are applied in herbal medicine to assist treatment in diseases of the gastrointestinal and urinary tracts (Polakowska 1986: 120). Historically, juniper has been used as a condiment for beer, or medicinal, antiseptic and protective agent. Juniper oil has antibacterial and fungicidal properties. It was used to fumigate people, animals, premises, and corpses in times of epidemics (Nowiński 1983: 28). Juniper fumigation probably has origins in the Middle Ages. Chemical traces of juniper and pine tar have been identified through chromatographic analysis and mass spectrometry performed on ceramic censers deposited in burials in Belgium, dating from the 12th-14th centuries. Native aromatic plants were probably added to imported incense in order to reduce costs (Baeten *et al.* 2014). Juniper was associated with infertility and used for abortifacient purposes, but the name of the plant (Polish *jałowiec* is a cognate of *jałowy* – 'barren') rather derived from the fact that it often grows in barren wastelands (Kapeluś 1989: 58).

**Fig. 46.** Common juniper (*Juniperus communis* L.)

Cloves are flower buds of a tree (*Syzygium aromaticum*) that occurs in the wild in Indonesia. *Syzygium aromaticum* is cultivated in equatorial climates, mainly in Africa and Asia. Cloves contain oil with antiseptic and anaesthetic properties, based on eugenol (Nowiński 1983: 240). In the 16th century, cloves began to be shipped to Europe in larger quantities. They were treated as a luxury medicinal raw material. In herbarium of Marcin of Urzędów there is only a mention of cloves which were a novelty in the Polish-Lithuanian Commonwealth at the time: "Indian cloves which at that time came to Poland" (Marcin of Urzędów 1595: 32).

Pumpkin seeds woven into grave wreaths have been found in the former cemetery at Schlossplatz (Cat. H31, H32) and in the cemetery at St Peter's Church (Cat. H34) and St Hedwig's Church (Cat. H33) in Berlin (Lippok 2015: 85-86). The seeds used as an imitation of beads in the grave crowns discovered in Berlin are so far the only archaeologically confirmed cases of pumpkin use in early modern burials.

Native to South America, the pumpkin was brought to Europe just a few years after Europeans arrived on the continent. The oldest image of a pumpkin in Europe is found in the *Grandes Heures d'Anne de Bretagne* created in Touraine in Loire region, France, between 1503 and 1508 (Paris *et al.* 2006: 44). Until recently, the first image of the pumpkin was considered to be included in Leonard Fuchs' herbarium of 1542 (Paris *et al.* 2006). The spread of the pumpkin in Europe occurred soon after its importation, as evidenced by numerous finds of its seeds in cities (Beneš *et al.* 2012: 111).

Pumpkin seeds were used by Native Americans for digestive disorders. Similar uses were presented by authors of Polish herbaria. Pumpkin seed powder was believed as being a remedy for diarrhoea, intestinal burning and liver disorders. It was considered to relieve thirst, act as a diuretic, fight colic, heal wounds and ulcers (Syreniusz 1613: 1177-1178). Oil or milk extracted from the seeds was also thought to be a cure for inflammations and fevers (Syreniusz 1613: 1179; Kluk 1805: 170). Pumpkin seeds were supposed to have been placed in rural graves in Poland in the 19th century to keep the dead from leaving them (Kurasiński *et al.* 2018: 188).

A depiction of a pumpkin, alluding to the Biblical story of Jonah, features a carved tombstone by Hans Christoph Schurtz from the Evangelical church in Hähnichen, Saxony, from around 1670 (Cat. 134). At the feet of the portrayed boy, a skull from which grows a stem with a flower and pumpkin leaves, is placed (Stankiewicz 2015: 117).

For the decoration of grave crowns, citrus fruit, such as lemons with cloves arranged in a sign of the cross, were also used (Seib 1979: 116). The orange-coloured fruit with green leaves is shown next to the wreath on the head of Princess Antonia von Württemberg who died as maiden (Cat. H6, Fig. 19), in her post-mortem portrait from 1679 (Schuchard 2007: 242). Leaves of bitter orange (*Citrus aurantium* L.) and rosemary (*Rosmarinus officinalis*) were discovered in the Cathedral of St Vitus, St Wenceslas and St Adalbert in Prague, in a wreath deposited in the tomb of Eleonora (Cat. K5), daughter of Maximilian II. of Habsburg, buried in March 1580 (Beneš *et al.* 2012: 108). Lemon and orange were symbols of virginity in the early modern period[12]. Citrus branches have also been found in the crypt of the von Schlabrendorff family in Brandenburg an der Havel in female graves from the 18th-19th century (Diane 2004: 101-104).

In the crypt of the parish church of Berlin-Mitte, under a child's coffin, a diadem decorated with tufts of the springy turf-moss (*Rhytidiadelphus squarrosus*), was found (Cat. H29; Wittkopp 2015: 59). The springy turf-moss is called *Kranzmoos* in Germany because of the arrangement of the leaves at the top of the stalk. In the same crypt (Cat. H27), a bundle was also discovered which was made of the common club moss (*Lycopodium clavatum* L., Fig. 39). Unfortunately, due to the disturbed stratigraphy of the burials in crypt, it is not possible to determine whether the moss accessory could be the base of a grave wreath, and if the bundle of club moss could also be part of such an artifact. In the crypt at St Nicholas Cemetery in Görlitz, on the coffin, there are located garlands made of boxwood twigs (*Buxus sempervirens*), of fir twigs (*Abies* sp.), club moss (*Lycopodium clavatum*) and bank haircap moss (*Polytrichastrum formosum*) (Cat. H106).

Mosses were sometimes mentioned by Renaissance herbaria, but were not popular in medicine. Mosses occurring on the territory of Poland raised the interest of naturalists not until the 18th century (Drobnik and Stebel 2014: 682-683). Few of them were used in folk medicine of the 19th-20th centuries. They played a role in magical protective procedures and were used for curses breaking (Paluch 1989: 51-52).

A wreath of bay laurel (*Laurus nobilis* L.) was also found in the crypt of the Berlin-Mitte parish church. It was placed on a coffin cushion, next to a deceased adult male. However, it is uncertain whether the wreath was originally located in this spot (Cat. H24; Lippok 2007: 260). The crypts under the Berlin-Mitte church were the resting place of respected citizens of the city in the 18th-19th centuries. It is likely that the laurel wreath refers to the ancient custom of crowning the heads of honoured individuals.


**Fig. 47.** White willow (*Salix alba*)

[12] For more on citrus, see chapter 3.6.2. Fruit in burials.

Leaves of laurel as part of an unpreserved grave decoration were also discovered in the coffin of an adult male buried in the crypt beneath the cathedral in Brandenburg an der Havel, near his feet (Cat. H38). They were found in grave wreath structures in the crypt of the church in Pritzen (Cat. H50), in the parish church in Bützow (Cat. H114) and in the crypt of the Admiralty Church in Karslkrona (Cat. N1). A wreath of laurel was placed on the chest of Bishop Iver Munk buried in Ribe Cathedral in 1539 (Cat. C22). In St Cathrine Church Kr. Rendsburg-Eckernförde laurel, along with cardamom, cloves and rosemary, was part of grave crowns (Grüneberg-Wehner 2018: 159). A sprig of a laurel-like plant was placed in the hands of Eleonora of Habsburg buried in St Vitus Cathedral in Prague (Cat. K5).

Laurel leaves were used to preserve corpses, and were discovered in the coffin of Engelbrecht II von Nassau in Breda, who died in 1504 (Cat. G2), in the coffins at Trendelburg (Cat. H94), in the burial of prince Ludwig von Nassau (Cat. H131), and in the Archcathedral in Przemyśl, in the body of bishop Walenty Wężyk (Cat. J260). Covering the body with laurel leaves was noted in St Olaf's Cathedral in the burial of a person who died in the early 18th century (Cat. C6). Similar methods are depicted in child portraits, e.g.: from Rysum from around 1659, where laurel leaves were sprinkled over the body and pillow (Cat. H112), and also at 17th-century post-mortem portrait of an anonymous child from England, where they were placed on bed linen (Cat. O1).

The bay laurel (*Laurus nobilis* L.) in its native Mediterranean region is a tree that can grow up to 10 metres high. In Poland, it is only encountered as a pot plant. Dried bay laurel leaves are used as a culinary spice (Nowiński 1983: 225). Laurel contains an essential oil that inhibits bacterial growth. In antique Greece, it was dedicated to Apollo who sent and reversed plagues. Bay laurel was believed to have the power to ward off evil and disease. It also brought moral purification which is why laurel wreaths were used to decorate the heads of soldiers who shed blood during war. This is where the ancient tradition of crowning victors with laurel also originated. The laurel entered Christian art along with triumphal symbolism (Forstner 1990: 177-178).

The laurel wreath motif was often used in the decoration of coffins, frames of epitaphs and coffin portraits. The so-called crowns of victory or justice from the 18th/19th century are preserved in Lich-Bettenhausen and Butzbach in Hesse. They are made of metal sheets, cut in the shape of laurel leaves, topped with a figure of an angel or a lamb with a palm branch (Neurath-Sippel 2007: 16). They represent the triumphal type of sepulchral crowns, associated with the idea of overcoming sin and death or with glory deserved by living a good and virtuous life on earth. A similar symbolism is depicted in the portrait of the dead boy from Alkmaar. The child is shown with a branch of rose with an unbloomed bud in his left hand and laurel in his right hand, which together signify the triumph of innocence (Cat. G14, Fig. 8).

In the Salvator cemetery in Wrocław, a wreath decorated with branches of plants from the cypress family resembling thuja, was found in the grave of an approximately 7-year-old boy (Cat. J145; Wojcieszak 2015: 33). The genus (*Thuja* sp.) includes five species of evergreen, poisonous trees and shrubs. Thujas are often planted in cemeteries. The tree was formerly associated with negative effects on humans (Paluch 1984: 60). The remains of thuja tree were found in the tomb of Bishop Wężyk (Cat. J260) in the Przemyśl Archcathedral from the 2nd half of the 18th century (Drążkowska 2015, 304).

Coniferous branches were also used in the construction of wreaths, e.g.: spruce/larch or pine in Pritzen (Cat. H50; Lippok, 2009: 31). Marcin of Urzędów considered the pine as a plant of little medicinal use: "common pine vile for medicine except for building and fire" (Marcin of Urzędów 1595: 369). Pine needles and shavings were used to fill coffin pillows and mattresses because of the fragrance they emitted (Cat. H2).

On the lid of the coffin deposited in the crypt located in St Michael's Cemetery in Lüneburg (Lower Saxony) around 1900, were found three wreaths – made of spruce (*Picea abies*), thuja (*Thuja* sp.) and boxwood (*Buxus sempervirens*) (Ströbl and Vick 2008: 77). Today, these plants are also used for funerary decorations. Simple garlands of myrtle and roses are also characteristic of the final phase of the custom. Rose garlands were used, for instance, to decorate the epitaphs of soldiers killed in the First World War (Müller 2007: 15).

On the basis of analyses of written sources and ethnographic accounts, it is assumed that wreaths were also woven from the branches of cypresses (*Cupressus* L.), sprouts of mint (*Mentha pulegium* L., Fig. 48), oxeye daisy (*Leucanthemum* Mill, Fig. 49; Segschneider, 1976: 145), common gypsophila (*Gypsophila paniculata* L., Fig. 50), yarrow sneezewort (*Achillea ptarmica* L.; Bärnthol 2003), periwinkle (*Vinca* L., Fig. 51; Fischer 1921: 102). Some plant species were supposed to be exclusively for the category of the deceased requiring protection after death, e.g., dwarf everlast (*Helichrysum arenarium* (L.) Moench, Fig. 52) wreaths in Lower Franconia were put on the heads of deceased obstericians (Bärnthol 2003: 52).

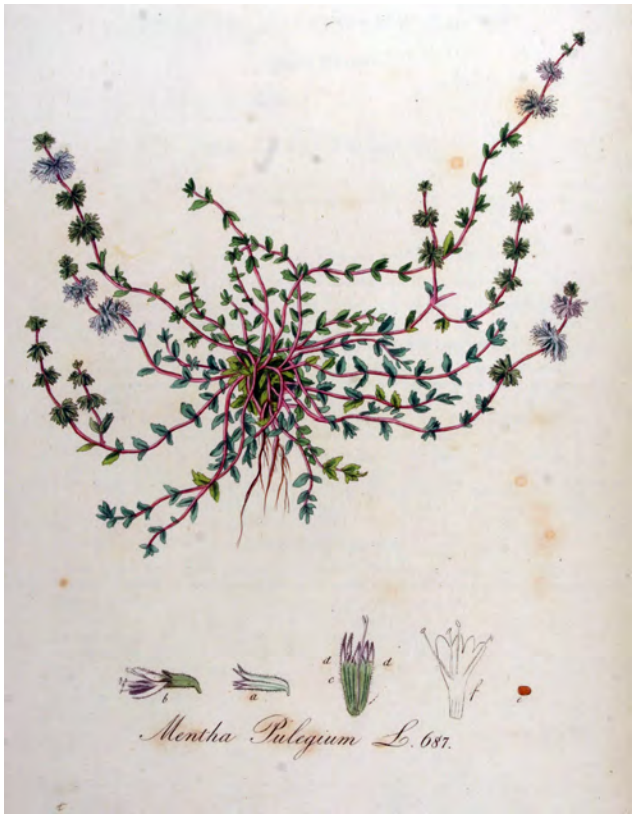


**Fig. 48.** Pennyroyal (*Mentha pulegium* L.)

The plant species used for wreaths construction evidenced in archaeological finds, written sources, and iconography, exhibit approximate features. They are fine-leaved, evergreen, aromatic and not native to the northern part of Europe. Rosemary, myrtle and boxwood were the most common plants encountered in wreaths. Wedding wreaths were also traditionally woven from these three plant species. Of the plants recorded less frequently, hyssop, common rue, bay laurel, trees of the cypress family, and conifer share some of the same abovementioned characteristics.


**Fig. 49.** Marguerite (*Chrysanthemum leucanthemum* L.)

Other plants used to make wreaths (southernwood, juniper berries, citrus, cloves) are also distinguished by their intense aroma. It can be assumed that one of the most important functions of the natural plants woven into grave wreaths was to cover the unpleasant smell of decomposing body. This was seen at the time as a way of preventing the spread of disease, the source of which was the miasma released from the corpse. These plants were also turned into other decorative arrangements for coffins. They were used for filling of coffin cushions and embalming corpses In Western and Southern Europe, plants from four families have been most commonly used in embalming process

of the bodies of the deceased since the Middle Ages: the labiate (*Lamiaceae*), which include rosemary and hyssop, *Myrtaceae*, umbelliferous (*Apiaceae*) and *Asteraceae* (Corbineau *et al.* 2018: 157). Almost all of the listed natural plants that were found in grave wreaths belong to the mentioned families. *Labiate*, *Pinacae*, *Rosaceae*, *Rutaceae*, *Umbelliferae* and *Asteraceae* are among the few in the Central European environment to produce essential oils (Polakowska 1986: 26).


**Fig. 50.** Common gypsophila (*Gypsophila paniculata* L.)

In modern herbaria, herbs intended for wreaths are presented as remedies for infections, parasites of various kinds and even snake repellents and poison neutralisers. Modern research has confirmed the bactericidal, fungicidal and/or insecticidal effects of the essential oils produced by rosemary, myrtle, boxwood, hyssop, southernwood and rue.

With qualities associated with vitality and longevity, the plants used in grave wreaths may have had an apotropaic function. Magical/protective properties were attributed to rosemary, hyssop, southernwood, common rue, boxwood, juniper and bryophytes.


**Fig. 51.** Lesser periwinkle (*Vinca minor* L.)

Most of the species used for wreaths and crowns production are evergreen, such as myrtle, rosemary, boxwood, common rue, juniper, hyssop, pine, cypress, bay laurel. The green colour and the ability to remain fresh in winter symbolised the person beginning eternal life or the hope for Salvation. Evergreen plants were presumably associated with premature death. The willow, from which the hoops of wreaths were made, also signified a barren life (de la Feuille 1691: 27/9). Perhaps the reason for the use of cultivated, potted and evergreen plants is that fresh flowers

were unavailable during the winter. In Renaissance gardens, due to the popularity of trimmed hedges, espaliers and topiaries, evergreen species were favoured, along with other plants that tolerate well heavy trimming, such as boxwood and rosemary. Growing thermophilic plants indoors and in conservatories also became more fashionable. In the tomb of Princess Eleonora who was buried in March 1580 (Cat. K5) in Prague Cathedral, orange and rosemary leaves were placed which, perhaps grown indoors, were green at this time of year.


**Fig. 52**. Dwarf everlast (*Helichrysum arenarium*)

On the basis of the gathered materials, the conclusion can be drawn that natural flowers were rarely used to decorate garlands. Occasionally, the stems of the herbs used in the construction of wreaths possessed flowers, but it is likely that the green colour of the leaves themselves and the strong scent of the plant were more important. Many of the flower species described in written sources or shown in the iconography have not been found, or at least their discovery in burials examined archaeologically has not been reported in the literature. These include, for example roses, lilies and anemones. Presumably, artificial flowers were inserted between the natural, green branches.

The plants used to create grave wreaths were mainly those used in betrothal or wedding ceremonies in the past. Common myrtle, rosemary, southernwood, common rue, boxwood, carnations, lilies, roses, lemons and oranges can be associated with marriage or virginity symbolism. Juniper, common rue, rosemary and periwinkle were also used to make so-called wedding rods, symbolising the conclusion of a contract or transaction (Kapeluś 1989: 58). The grave wreath was an attribute of those, who died unmarried, i.e., remaining in a state of purity. The use of plants representing marital or virginal symbolism provides an argument for the thesis that grave wreaths may have been the equivalent of bridal or maidenly head ornaments. A separate category is constituted by the plants that form the structural building blocks of the wreath. Gilded juniper berries, poppy seed heads, cloves and pumpkin seeds were meant to imitate precious jewels. Most likely, the high flexibility of willow and boxwood twigs determined their selection for the hoop construction.

Interestingly, almost all the plants described as wreath parts were more or less established imports at the time. In Europe north of the Alps, in wreaths occured exotic plants which were introduced or returned to more frequent use in the early modern period, such as myrtle, cloves, citrus fruit and pumpkin seeds. This was probably related to the need to manifest prosperity. Initially, imported plants were less available and had to be purchased at considerable expense.

The modern period, and especially the Renaissance, was characterised by an interest in all sorts of innovations which were attempted to be introduced into Northern European gardens. Medicinal gardens were established for learning about medicinal plants and testing their usefulness. Efforts were also made to accommodate Mediterranean plants and those imported from other continents (Jagiełło-Kołaczyk and Brzezowski 2014: 108).

Mediterranean herbs first appeared in Northern Europe at the twilight of Antiquity or in the early Middle Ages. The information contained in the Renaissance literature suggests that in Central Europe Mediterranean herbs were considered still relatively unknown in the 16th century (Kapeluś 1989: 57). In the Middle Ages, bachelors and ladies of the court portrayed themselves in wreaths made from herbs of foreign origin. Wedding and funeral wreaths made from aromatic herbs were known in the Middle Ages, but it was not until the modern period that these plants began to be used to crown the dead. Embalming procedures using herbs of Mediterranean origin were also used among the upper classes in the Middle Ages.

The adaptation and spread of plants from Southern Europe were probably influenced by the reading of the Scripture, literary studies, Greek and Roman mythology and, in the modern period, also by a growing interest in ancient history, philosophy, way of life (the concept of achieving virtues) and symbolism or the imitation of fashionable horticultural trends. The spread of systematised and standardised botanical knowledge accelerated in the 16th century, through the agency of printed books, especially herbal-pharmaceutical compendia. Authors of herbaria made use of familiar ancient works, especially those of Dioscorides, Pliny the Elder, Theophrastus and Galen. To a large degree, modern herbaria were compilations of Western European, medieval and younger works, but they also contained the authors' own observations. They were the first botanical publications in national languages (Zemanek 2012: 213). Compendia containing information on both the properties of native plants and hitherto unknown imported species from different parts of the world have been made available for the first time. Knowledge that had formerly been transmitted orally or restricted, began to be replicated without any errors or distortions. Herbaria entries were provided with realistic engravings showing the appearance of the herbs, which made it possible to identify the plants in nature. In the lands of Poland, modern herbaria were used as a basis for medicinal treatment until the 19th century (Zemanek 2012: 218)

Based on the information collected in the catalogue, a high proportion of herbs associated with ancient, cosmopolitan symbolism can be observed in relation to plants popular only locally. Mediterranean herbs appear in the pages of Scripture, the reading of which has become widespread since the Reformation. In German ethnographic literature, a connection was sought between the modern custom of placing wreaths on the heads of the dead and ancient funeral ceremonies (Segschneider 1976: 14-16). The increased interest in Antiquity in modern Europe may have contributed to the development or resumption of the custom of wreathing the heads of the dead.

The popularisation of plants of Mediterranean origin was also influenced by the flourishing of modern emblematics and the infusion of visual space with representations of a symbolic nature which appeared not only in art, but also on prints and everyday objects. They were depicted on craft objects, such as ceramics, parts of clothing, glass, furniture and textiles. Iconological personifications of concepts which also referred to emblematics and used symbols, were often accompanied by floral attributes.

Religious changes may have resulted in the spread of the custom in the 16th-17th centuries. According to Gerhard Seib, grave wreaths can be originated from folk piety (Seib 1979: 114). As a result of the Reformation, the cult of the saints and the props used in it began to be questioned, including floral decorations which were considered unnecessary pomp and a manifestation of pride. According to Jack Goody, the removal of flowers from worship led to the flourishing of secular customs associated with plants. The demand for iconoclasm in the early phase of the Reformation by the more radical spiritual leaders led to the removal of plants from official worship, but the need to decorate images of saints moved into the private sphere of domestic rituals where a new path for its development began (Goody 1993: 186).

Protestants rejected the belief in the possibility of influencing the fate of the dead through posthumous prayer and other religious acts performed on their behalf, but the abrupt break with old customs was not fully effective. According to some authors, amongst Protestants, grave wreaths may have become widespread as a protective amulet gifted to children deceased before they were baptised. The burial of unbaptised children in the modern period was no longer subject to ecclesiastical prohibitions, but it still happened to differ significantly from the typical burial

of the time (Lippok 2009: 81). Protection was also provided for unmarried individuals.

Wreaths and sepulchral crowns may well have originated from the funerals of rulers and the aristocracy. Funerals of members of wealthy families included references to ancient ceremonies and triumphs. Sermons, descriptions and graphics of the bodies in the coffins, and family trees showing the connections of the deceased, were published in print. The artistic and theatrical arrangement of funerals and the accompanying printed publications were addressed to the living members of the families, fulfilling the function of consolidating alliances, often based on blood ties. For this reason, symbols of triumph were used even at the funerals of children of a few years old who had not yet managed to earn their posthumous honours.

In the western lands of present-day Poland, grave wreaths and crowns are found in ordinary earthen graves in cemeteries and in urban churches (in Germany also in rural churches). In the eastern part of Poland on the other hand, grave wreaths have been discovered (apart from Protestant burials) only in a few graves of the nobility.

# 4. PLANTS AS FILLING MATERIALS FOR PILLOWS, MATTRESSES AND COFFINS

## 4.1. Straw, hay and herbs as filling for pillows, mattresses, and coffin bottom lining in the Middle Ages

The symbolic connection between death, and sleep was clear in many cultures in the past independently and cannot be attributed to a single religious or philosophical system. It is evidenced by grave furnishings that mimic equipment designed for sleeping, discovered in graves.

In Old Norse the word *likstrå* ('lik' – corpse, combined with 'strå' – straw) meant a person who had died, or was resting on a deathbed (Hägg 1997: 111). The Old English word *leger* (modernly translated as 'lair' and meaning a place where one lies), was used to refer to both beds and graves.

Members of the elite in the 6th-7th centuries AD were sometimes buried in beds. Bed burials have been discovered in Britain, Sweden, Norway and Germany. The bed, constructed of a wooden frame, was padded with a mattress filled with straw. The body of the deceased was probably laid on it after the structure had already been placed inside the tomb (*Mystery of Anglo-Saxon teen buried in bed with gold cross* 2012). In Trossingen (Baden-Württemberg), the burial of a man from the 6th century AD was discovered. The deceased rested on a wooden bed covered with a thick layer composed of tightly compacted fragments of grasses from the *Poaceae* family (Grömer and Rudelics 2014: 60).

Meadow plant remains have been identified in samples from the early medieval Gullhögen barrows ('golden mound') at Husby-Långhundra (formerly Husby-Långhundra parish) and Vendla near Vendel church in eastern Sweden[1] (7th-11th century). The mound at Vendel contained the ash and overburnt remains of ship burials. In the Viking funerary ritual, hay may have served as a mattress filling for the deceased or as fodder for horses travelling to the afterlife with them (Hansson 2005: 51). Viking ship burials and other types of graves were sometimes furnished with mattresses and pillows, usually made of feathers (Panagiotakopulu *et al.* 2018).

Early medieval graves with the remains of straw-filled mattresses have been discovered among others in Switzerland, Germany and Austria. In the 7th century, straw was used on a significant scale to line grave pits or to fill grave mattresses. In a burial discovered in the Baar cemetery on Früebergstrasse (Zug, Switzerland), remnants of leaves, grass and straw were identified in four women's graves. These were found under grave furnishings and probably served as mattresses or bedding (Grömer and Rudelics 2014: 60)

In Nivelles, Belgium (Walloon Brabant), pollen of grasses, cereals and accompanying weeds (Cat. B12, B13) was found in burials in two cemeteries within the city cen-

[1] The historic land of Uppland, its area belongs to three administrative regions: Uppsala, Stockholm and Västmanland.

tre, located near the churches of St Mary, St Peter, St Paul and St Gertrude, dating from the 8th-15th century. The results were compared with samples obtained outside the grave pit and within the pelvic areas of the deceased. One grave contained the remains of an organic cushion filling. Significant amount of cereal pollen adheres to the ears and stalks. The straw contains also pollen of the weeds of the arable fields. Similarly, hay contains a considerable amount of pollen from grasses and accompanying meadow plants. Therefore, the observed high concentration of pollen in the grave pits (Cat. B1, B2), may indicate the existence of non-preserved linings or cushions filled with hay or straw (Deforce *et al.* 2015).

During excavations in the Schleswig market place around and within a now-defunct church, coffin burials dating to the late 11th-early 12th century were discovered. Coffin no. 27 contained the burial of a 5-6-year-old child (Cat. H159). The body was wrapped in a shroud, the remains of which were preserved at the lower limbs of the deceased. The face was covered with a fine fabric. Fragments of a third textile, with which the deceased was covered, were identified around head, on the skull, and the abdomen. Straw stalks were found at the bottom of the coffin. These were covered with a coarse cloth. A bent bundle of grass was placed under the child's head. On the same site, in a grave of an adult individual, a lining consisting of grass and brushwood was found (Cat. H161; Hägg 1997: 111).

The remains of a cushion were discovered around the head of a child buried in the 13th century in the Cathedral of Saint-Corentin in Quimper, Brittany (Cat. F1; Dietrich and Gallien 2012: 400). Straw linings mixed with ash, charcoal, wood shavings and the remains of pillows containing straw have been discovered in late medieval and early modern burials in St Paul's Church in Antwerp (Cat. B2, B3, B5, B6, B7, B8; Veeckmann 1997: 71-75).

Burials filled with straw, moss and herbs dating from the 12th-16th century have been recorded in England (Deforce *et al.* 2015: 601). At Sandwell, in the chancel of St Mary Magdalene Church, a male burial was found (Cat. O49). The grave pit was lined with grasses (*Poaceae*) and sedges (*Carex*). Amongst these were the remains of buttercups (*Raunculus*) and sorrel (*Rumex*). In the same church, a triple grave of an adult male with two boys (Cat. O59), was discovered. They were laid out on a board covered with a bedding of straw, hay, weeds and moss. Cushions were preserved under their heads (Gilchrist and Sloane 2005b: 176). A man buried in the transept of Sandwell Church was laid on a bedding of grass, crop weeds and parts of other plants ('shrubs') (Cat. O58).

Remains of straw and grass were found inside the coffins of members of the von Nassau family, deposited in Breda's St Mary's Church, in the crypt in the north side of the nave. The filling of the coffins, in which Jan IV Nassau, Cimburga van Baden and Louise Francisca van Savoye were buried, resembled straw fused with resin (Cat. G5, G6, G8; Maat 2013, 57-60; Maat *et al.* 1997: 2501--2513). In the burial of Maria van Loon (Cat. G7), grass remains were identified, originating possibly from a mattress. Coconut (*Cocos nucifera*) fibre was found on the floor of the crypt. The fibre may have been part of a mat or mattress under one of the embalmed bodies in the crypt (Haaster and Vermeeren 1999: 16).

Straw and hay were used both before and after death. Besides their function as coffin linings, grave pit linings or fillings of the elements of the grave bedding, these raw materials were used by washing of the deceased, during the display of the corpse in the chapel and transport to the cemetery.

In the Middle Ages, the deceased body was placed on a bed of straw before proceeding with the further stages of burial. The washed corpse was laid on a bed of straw on the floor or on the bed padded with straw. The straw was used to isolate the corpse from the ground and to absorb the products of decomposition. Depictions of the deceased resting on the floor on beds or bolsters of straw or hay are frequent in Western European iconography from the late Middle Ages onwards. An illustration from *The Hours of Catherine of Cleves* from the 15th century shows a scene of a corpse being lifted from the straw spread on the floor (Fig. 53). A French painting by an anonymous author from the early 16th century depicts the body of the deceased laid on the floor with the head support made of the bundle of straw or hay[2]. Similar bolsters in the form

2 The representation features three skulls and a memento mori inscription: "*Respice finem, Sic transit gloria mundi*" – "See the end, Thus passes the glory of (this) world."

of bundles of straw are also depicted in Pieter Breughel the Elder's painting *The Triumph of Death* from 1562 (Fig. 54). Children in two Dutch post-mortem portraits created in the 17th century (Cat. G20, G21) rest on straw spread on a sheet inside the bed (Fig. 55, 56). Bodies awaiting burial were also laid on straw beddings inside coffins (Corbineau 2014: 76).

**Fig. 53**. *Preparation of the corpse* from *The Hours of Catherine of Cleves*, circa 1440, Utrecht, currently: New York, The Morgan Library & Museum

According to ethnographic reports, a dying person could be laid on the floor on straw in order to accelerate death. This custom was supposed to be common in Europe at the end of the 19th – beginning of the 20th century (Fischer 1921: 75-79). The bedding was then destroyed or abandoned at the limit location. Left by the road to the cemetery, it served as a resting place for the souls of the dead returning to the places known to them during their lifetimes. Burning the straw from the bedding under the body of the deceased was practised most probably in the Polish lands as early as the 15th century. The ash from the burnt straw was supposed to protect the household from the return of the soul of the deceased (Labudda 1983: 72).

In the rural areas of Europe in the 19th – early 20th century, the bodies of the dead after washing were also wiped dry with straw (Biegeleisen 1930: 228). Afterwards, the corpses were displayed on a board covered with straw. They were only placed in a coffin before being brought to the cemetery (Biegeleisen 1930: 161). Such practices most likely existed already in the modern period. In the 1638 post-mortem portrait of Jacobus Tiras, the body of a deceased priest in habit was displayed on a board, with a bundle of straw under his head (van der Knaap 2005: 62).

The straw was also used during the transport of the corpse to the burial site, as a pad underneath the coffin on the cart (Biegeleisen 1930: 227). In an 18th-century painting from Bruges, the body is being carried into the cemetery without a coffin, but wrapped with straw (Deforce *et al.* 2015: 602).

The dead were also laid out on straw mats. The tombstone of the French physician Johannes Ballivi from around 1520, located in the church of St Nicholas in Tallinn, shows a skeleton in an arcade, lying on a straw mat (Cat. D1, Fig. 57; Kurisoo 2013: 59). On the reverse of the 1522 painting of *St John the Baptist and a Canon* by Jan Provoost, the shrouded deceased rests on a mat spread on the floor. The effigies of Engelbrecht II von Nassau and his wife Cimburga von Baden lying on simple straw mats, are shown on their tombstone in the Main Church of the Blessed Virgin Mary in Breda. In the coffins of members of the von Nassau family resting in the crypt located in the aisle of this church, the remains of straw linings have been identified. In the altar painting of St Luke in Lübeck from 1484 the saint dies in bed lined with a mat (Fig. 58). By rolling up parts of the mats, the heads of the figures resting on them were raised.

An illustration from *The Book of Hours* made in Paris around 1485-1490 shows the sewing of the body of the deceased inside a shroud. The corpse was removed from the deathbed and laid on a mat spread on the floor (Fig. 59). The dead were probably also buried on mats, as indicated by the accounts of the Charlieu hospital, which in 1537 recorded the purchase of twelve mats for the burials of the poor (Corbineau 2014: 76).

**Fig. 54.** Pieter Brueghel the Elder, *Triumph of death*, 1562, Madrid, Prado Museum

**Fig. 55.** Bartholomeus van der Helst, *Portrait of the dead child*, 1645, Gouda, Stedelijk Museum Het Catharina Gasthuis

**Fig. 56.** *A child of the Honigh family on its deathbed*, 1675-1700, Den Haag Mauritshuis

**Fig. 57.** Tombstone of Johannes Ballivi, 1520, Tallinn, St Nicholas Church

Based on iconographic sources, it can be assumed that in Middle Ages similar straw mats lined the floors of houses. They served as isolation and may also have been used outdoors. In iconography, they are depicted as lining of small building structures, such as arbours. They may have been used for sitting, lying down and sleeping. Mary in the Nativity scenes rests on a straw mat. In other depictions, the newborn Jesus is laid on a straw mat spread out on the ground, instead of the usually featured bundle of straw. Mats also appear in depictions of other biblical figures, such as the beggar Lazarus lying on a mat at the gate of the rich man's palace, from the parable recorded in Luke's Gospel. A fragment of mat woven from plant stems was found during archaeological excavations at the Nowy Targ Square in Wrocław in a layer dating from the 2nd half of the 14th - early 15th century. It is now stored at the Archaeological Museum in Wrocław.

Pope Innocent I (401-417 AD) recommended placing a dying person on the ground on a bed made of ashes and straw, before receiving the last anointing. This was meant as a sign of humility and penance (Deforce *et al.* 2015: 602). The accounts of the deaths of the saints established a model of a good Christian death. St Martin of Tours used to sleep on straw, but wished to die lying on the floor in the ashes. Similar customs existed in the monastery of Citeaux. A person close to death was laid on a sack, on which the sign of the cross had previously been drawn with ash, with a mat or bundle of straw (Corbineau 2014: 72).



**Fig. 58.** Hermen Rode, *Altarpiece of the Guild of St Luke – death of St Luke the Evangelist*, 1480-1490, Lübeck, St Annen-Museum

**Fig. 59**. *Body is sewn into shroud by woman, Book of Hours*, circa 1485-1490, Paris, currently: New York, The Morgan Library & Museum

Ash traces are well documented in medieval graves. In the early Middle Ages in England, Scotland, France and Scandinavia the burials with the linings of the coffins or grave pits consisting of charcoal or ash were discovered. This type of lining was recorded most frequently in monastic cemeteries and survived into the late medieval period. Ash was also observed in graves in the cemetery at the Holy Trinity Church in Strzelno in Poland (Sulkowska-Tuszyńska 2006: 126). The use of ashes and straw in the funeral ritual was an expression of penance, especially before the adoption of the Doctrine of Purgatory by the Roman Catholic Church. Straw was probably already associated with a modest or ascetic funeral in the Middle Ages, but more evidence of such symbolic analogy comes only from the early modern period.

In Western Europe, charcoal, ash, stone rubble, fuller's earth, lead plates, chalk or lime mortar were sometimes used as grave linings. After the body was deposited, the graves could be backfilled with substances with a draining effect – ash, charcoal, river silt or diluted clay. Ash, charcoal, chalk and lime have the ability to absorb odours. The silt and clay poured over the body, when dried, formed an airtight shell around it which also limited the odour of decay emerging from the burial. Shrouds impregnated with wax or made of lead served a similar function. Plants in the form of cushions and linings were probably intended to aid the drying of the body and perhaps also mask the smell of the corpse.

English researchers distinguished between charcoal burials and those containing an ash lining (ash burial). The custom of burying the deceased on a layer of charcoal and covering the body or coffin lid with charcoal, is considered to be older. It was present in England from the 9th-12th century. The second type refers only to coffin linings and dates to between the 1370s and the mid-15th century. The ash used for coffin bottoms came from domestic hearths and sometimes contained consumer waste (Cat. O8; Gilchrist and Sloane 2005b, 120-122).

According to Durandus' description of the liturgy, covering the grave with charcoal or ash served to mark its location. The ash in soil was a warning to avoid using the burial site for other purposes and to prevent its destruction in the future. However, the function of the linings enclosed inside the coffins was probably different. More frequent occurrence of ash in burials of epidemic victims suggests a hygienic purpose (Gilchrist and Sloane 2005b 123). Twigs or coals may also have made it more difficult to dig into the soil (Tarlow 2010: 96).

The ash inside the burial pit may have come from incense burnt during the funeral. In post-Roman cultures, vessels containing charcoal were placed inside graves as lamps (Dąbrowska 2008: 104). Vessels containing charcoal and serving as censers are also found in graves. Such artifacts from the 13th-14th centuries are found in England, France and Denmark. In the north of France, the custom of placing censers in graves continued until the 17th century (Gilchrist and Sloane 2005b, 165). Traces of hearths, used during burial rites, are recorded within grave pits and in the vicinity of graves in early medieval cemeteries from Poland (Pawlak 1999: 133).

Charring of coffins and wooden structures is also observed in early medieval graves. It is probably the result of a prior cleaning of the grave pit by burning it. The wooden construction elements were then placed on the still smouldering embers. It could also be the result of secondary use of wood from demolition, such as from a fire (Pawlak 1999: 134).

In the Middle Ages, bottoms of earth graves were probably lined with a layer of hay, straw, leaves, shavings, moss or feathers. The speckled structure of the bottom of the grave pit may indicate the initial presence of an organic lining. The irregular shape excludes the possibility that these are the remains of a coffin, boards or a formwork (Pawlak 1999: 125).

Coffins, planks and other structures erected within the burial pit were also lined with materials of organic origin. The wooden structures used in medieval graves show a considerable variety of forms. The author of an article about the cemetery at Śródka in Poznań, western Poland, lists four main types: covering the deceased with planks, formworks, wooden coffins and log coffins. The burials are dated between the 10th/11th and mid-12th centuries. The Poznań site, however, stands out for the good state of preservation of the artefacts enabling the description of the types of wooden grave furnishings (Pawlak 1999: 115).

Planks were used to cover the corpse and were placed in various arrangements next to or around the body. The formwork could be provided with bottoms or crossbars reinforcing the structure, placed around or under the head and under the feet of the deceased. The type of formwork with wooden lid can also be distinguished. It is likely that bodies buried inside a wooden formwork without a base and/or cover were isolated from the soil by means of fabric, organic mats or wickerwork. Iron nails found in the graves may have been used to secure them in place (the timber constructions did not need to be nailed together). Wooden cross-bars could have facilitated the attachment of non-wooden bottoms. Non-preserved dry organic materials, such as moss, leaves or hay/straw, could have provided an isolation bottom layer. The formwork was most likely created shortly before the burial or already after the body had been deposited in the grave. Full-bottomed wooden structures, on the other hand, may also have served to transport or display the corpse before burial (Pawlak 1999: 122-123).

In the Middle Ages, there was a wide variety of arrangements of a burial pit. Apart of wooden, also stone, brick, ceramic tile or metal plate constructions were built. In Western Europe, wooden and stone coffins appeared around the 11th century. Lead coffins are associated with elite burials, and were found in the area of post-Roman cultures from the late 11th century onwards. Anthropomorphic lead coffins were used until the 16th-17th centuries. The dead were also buried in containers that could not be assigned to the aforementioned types, such as baskets or small boxes intended for reburied remains (Gilchrist and Sloane 2005b, 116-118).

Moss, like other types of grave linings, functioned as an isolating and absorbing agent, and due to its flexible structure, facilitated the correct positioning of the corpse. Burials dating from around 1250-1450 were found in the Benedictine Abbey Church of St Mary Magdalene in Sandwell, United Kingdom. The tombs of a man laid to rest without a coffin in the south transept of the church (Cat. O50), and a woman at the crossing of the aisles (Cat. O51), contained linings consisting of hay, straw and moss (Gilchrist and Sloane 2005b: 146).

A coffin from the mid-14th century was discovered in an Augustinian monastery in Hull (Yorkshire, United Kingdom). Fresh or previously dried peat moss genus (*Sphagnum*) was used to upholster its interior. The moss which originally covered the walls of the casket, was preserved at the right side of the deceased's chest. In St Mary's Chapel, Wells Cathedral, a trace in the form of a line was found on the walls inside a 13th century lead coffin (Cat. O77), indicating that the body was originally covered with moss or other plant matter (Gilchrist and Sloane 2005b: 180). The remains of a cushion made of moss or hay were discovered under the head of an abbot from Tyniec (Poland). This burial is dated to the period after the mid-14th century (Zoll-Adamikowa 1966: 121).

Religious beliefs concerning bodily resurrection which developed in the 10th-13th centuries, influenced the ways in which the body was treated at funerals. The positioning of the corpse precisely in accordance to the cardinal directions – with the head to the west and the face to the east,

became important. This guaranteed the quickest glimpse of Christ, the Saviour, returning to earth on the day of the Second Coming. According to words of Saint Matthew the Evangelist, Jesus will appear at first at the East: "For as lightning that comes from the east is visible even in the west, so will be the coming of the Son of Man" (Matthew 24:27).

In St Mary's Chapel at Glastonbury Abbey the heads of the deceased rested on wooden shavings, originally perhaps the filling of cushions (Cat. O20; Gilchrist and Sloane 2005b: 125). Wood shavings were also contained in a pillow discovered in the tomb of Bishop Jošt of Rožmberk buried in the chancel of Wrocław Cathedral, in southern Poland (Cat. J135; Wojcieszak 2012: 25).

In Western Europe, burials in which the head of the deceased rested supported on a plinth in the form of a shaped fragment of rock, brick, wood or ceramic tiles were recorded. Head supports were used both inside coffins or timber frames and in coffinless graves. Heads were also stabilised with stones or bricks placed closely on either side of the skull. Stone and lead coffins mimicked the shape of the body's outline and tapered in the head part securing it in the chosen position. In the Holy Trinity Church in Strzelno, in burials of Norbertine nuns dating from the 15th-16th century, the heads of the deceased were stabilised with three bricks placed around the skull (Sulkowska-Tuszyńska 2006: 126, Święta-Musznicka 2021: 200). In Płonkowo cemetery, a brick was placed under the jaw of the deceased, probably serving as a support (Grupa *et al.* 2015b: 44).

In France, burials with the head placed on a stone plinth date from the 12th-13th centuries and represent a small percentage of graves from this time. In England, head supports are recorded in graves dating from the 10th/11th-13th centuries (Gilchrist and Sloane 2005b: 160). The frequency of their occurrence varies in different sites, but does not exceed a few percent of all preserved burials. Within monastic complexes, stone head supports are found mainly in male graves and are dated from the 12th-16th centuries. It is likely that in graves where no supports constructed of other material were found, their function may have been served by mounds of sand (Gilchrist and Sloane 2005b: 147).

The stone 'pillow' under the head perhaps refers to story of Jacob from the *Old Testament* who experienced a vision of the heavenly ladder with his head resting on a stone. Jacob's ladder in the Middle Ages signified slow improvement on the path of asceticism. Placing the head on a stone was an expression of modesty and a way of mortification or penance for sins. The model of penitential agony was chosen by rulers, clergy, but also by lay Christians. Henry the Young, son of Henry II Plantagenet who was mortally ill, had his body tied with a rope and dragged from his bed onto a bed of ash-covered hairshirt. Stones were placed under his head and under his feet. Thus prepared, he received the last anointing (M. Evans 2007: 110). According to Elżbieta Dąbrowska, medieval tombs were furnished with objects intended to prove that the deceased had received absolution of sins and deserved Salvation. Placing the body on a stone or in ashes was a sign of repentance and atonement for sins.

Hard 'pillows', as posthumous acts of humility, seem to be particularly associated with the funerary culture of monasteries. In the later tradition of some male orders, the deceased were buried without furnishings, in the niches of the crypts, directly on the ground, with the heads resting on a stone. A stone under the head as a sign of hard monastic life was part of the funeral rite of friars buried in the crypts of the Saint Casimir's church in Cracow until the 18th century (Okarmus 2013: 1). In modern lay burials they were rather a piece of furnishing that aided aesthetic arrangement of the corpse. In the crypt in the parish church in Tiengen am Hochrein (Baden-Württemberg), a wooden footstool 8.3 cm high, covered by a silk pillowcase, was located under the head of a buried woman (Fingerlin 1992: 294).

Coffin pillows, mattresses and coffin bottom linings since the Middle Ages had also been filled with herbs. Herbs are rarely found in medieval burials without a coffin as grave pit linings or cushions. This is probably result of the poorer state of preservation of the older burials and graves at open cemeteries.

The remains of a cushion containing herbs, unfortunately unspecified, were preserved under the cervical vertebrae of a child from the Cathedral of Saint-Corentin in Quimper (Cat. F2; Dietrich and Gallien 2012: 401). The herbal contents of a pillow were also found in one of the medieval cemeteries in Nivelles, Belgium (Deforce *et al.* 2015: 597).

There is little information on the species of herbs used as coffin linings in the Middle Ages. At Derbyshire Dale Abbey an adult male (Cat. O2) was laid to rest in a wooden coffin on leaves of privet (Gilchrist and Sloane 2005b: 124). Privet is a popular evergreen or semi-evergreen shrub, native to Britain. It was used for hedges in traditional Elizabethan gardens. The leaves and fruit, in the form of black, berry-like drupes, are poisonous to humans and animals (Fig. 59).

In the south aisle of the Cathedral Church of Jesus Christ and the Blessed Virgin Mary, Winchester, a lining of oak leaves and straw has survived in the tomb of an elderly man, dating from the 13th century (Cat. O18; Gilchrist and Sloane 2005b: 145)

The interpretation of the function of plants used at a medieval funeral cannot be confined to utilitarian issues alone. Guillaume Durand, in *Rationale Divinorum Officiorum*, a treatise in liturgy of 13th-century churches of Western Europe, states that ivy, laurel and other green plants were placed in coffins. This was a sign that: "[...] those who die in Christ do not cease to exist, for whatever dies in the corporeal world lives in the spiritual world and will live again in God."[3] He also recalls the ancient rites involving the use of cypress branches at funerals (Dietrich and Corbineau 2015: 245).

In the Cathedral Church of Jesus Christ and the Blessed Virgin Mary, Worcester, the remains of an adult male (Cat. O63) were found in an earthen grave of c.1480-1510, located within the south aisle. The grave pit lining consisted of laurel leaves and branches (*Laurus nobilis*, Fig. 60) along with willow branches (*Salix*). The man was buried in pilgrim attire, wearing woollen robes and knee-high boots. Next to the body was a wooden walking stick and a perforated clam shell (*Cardiidae*). The walking stick was made of ash wood. The handle was covered with a purple paint made from bone char mixed with kermes crimson[4]. The joint and left upper limb strains indicate that the 60-year-old deceased took long walks during which he supported himself on staff. He was buried in the costume of a pilgrim, presumably to be recognised by God on the Judgement Day (Lack 2005: 112-128). The need for identification, a confirmation of the deceased's penance or piety, was highlighted in funerary customs in the late medieval and early modern periods by the placement not only evidence of pilgrimage, but also personal signs and commemorative plaques or inscriptions on tombstones and near burial sites. A laurel was discovered as well in the burial of Archbishop Aribo in Mainz Cathedral from 1031 (Cat. H129).


**Fig. 60**. Bay laurel (*Laurus nobilis*)

A bundle of common heather (*Calluna vulgaris*, Fig. 61) was observed in Bishop Lyhert's burial (Cat. O5), revealed at Norwich Cathedral. Heather spread rapidly in the Middle Ages as natural landscapes were destroyed by human activity. In Northern European countries, it played an important economic and symbolic role. It was used to produce everyday objects (bed linings, brooms). It worked as a honey plant, a spice for beer or herb for drinking

[3] Quoted in Dietrich and Corbineau 2015: 245, own translation.

[4] The dye, produced from the bodies of female Kermes insects that feed on Kermes oak (*Quercus coccifera L.*) and evergreen oak (*Quercus ilex*), is characterised by a red hue, similar to carmine (later made from Mexican cochineal). Due to the expensive and difficult-to-access dye used, it is presumed that the deceased man was a dyer who funded one of the chapels in the church.

(Jankovská 2011: 57), a medicinal plant and a protective amulet. It is among the plants sacred on the Assumption of Mary celebrations in Catholic church (Fischer and Kujawska 2016: 322). According to Fuchs, the juice of heather leaves could be used as a remedy for eye conditions. Compresses made from heather leaves and flowers were thought to help in case of bites from venomous animals (Fuchs 2016: Cap. XCV).

**Fig. 61.** Common heather (*Calluna vulgaris*)

Stems and shoot parts of yarrow (*Achillea millefolium* L.) were found at the bottom of the coffin of a child aged 5-6 years (Cat. H163), buried in the 12th century near a defunct church in the market square of Schleswig in Germany. The body was wrapped in two types of fabric of different thicknesses, presumably the coarser fabric was overlaid with the finer one. The remains of the plant were also found directly under the body, on the shroud (Hägg 1997: 111-112).

Yarrow (*Achillea millefolium* L.) is very common in Europe north of the Alps (Fig. 62). The flowers along with the herb, harvested during the flowering period, from July to September, are used as a medicinal raw material (Krześniak 1986: 55). The yarrow herb and flowers demonstrate bacteriostatic, anti-inflammatory and anti-haemorrhagic properties (Krześniak 1986: 55-56). The bitter achillein which the herb contains, stimulates the gastric secretion (Fijałkowski and Chojnacka-Fijałkowska 2009: 36-37). Historically, yarrow was used for all blood-related conditions. It was one of the most popular medicinal plants. Its anti-haemorrhagic and antiseptic medicinal effects were known already in ancient Greece (Krześniak 1986: 55). The views on the medicinal utility of yarrow as a wound-healing aid were taken over from the Greek botanists by Saint Hildegard of Bingen who also recommended its use against fevers and inflammation. It was believed to "cleanse the blood" (Paluch 1989: 85). It was sometimes considered a panacea (Paluch 1984: 36-37). Yarrow was occasionally used instead of hops for beer brewing, and in the 16th century in Germany it was added to wine (Łuczaj 2013: 147). In the modern period and later, yarrow was included in bouquets blessed at Feast of Assumption of Mary (Paluch 1984: 36-37). In the 19th-20th centuries it was hung in windows during childbirth. Children were bathed in a decoction of yarrow for strengthening. Yarrow was also used to treat diarrhoea, dysentery, colic, stomach pain, rheumatism, pneumonia, malaria or roundworms (Fischer and Kujawska 2016: 393-394).

In Schleswig, in the same cemetery, a bundle of field horsetail (*Equisetum arvense* L.), bent into a sigmoid shape, was discovered under the head of a young child buried after 1107 (Cat. H162). The bundle probably came from a pillow or bolster. Numerous species of horsetail are among the most widely used traditional medicinal plants in Poland. Horsetail is an ancient ceremonial plant. It was eaten during periods of food shortage. Shoots with a high silica content were used to polish pots, wooden vessels and floors (Fischer and Kujawska 2016: 470-471).

IIn the cemetery at the Cistercian convent in Koszalin, an unburnt seed of broadleaf plantain (Plantago major, Fig. 63), and a burnt seed fragment of another plant, were

found in the grave of a woman who died after the age of 50 (Cat. J268). Due to the poor state of preservation, the species of the second find was not determined. The grave dates to the period between the mid-13th and early-14th centuries. The woman was buried with her hands folded at pelvic level, in a pinewood coffin. There was a fragment of a belemnite near her feet (Abramów *et al.* 2015: 199, 207).

**Fig. 62.** Yarrow (*Achillea millefolium* L.)

In early medieval and later times, belemnites were thought to be formed by a lightning strike on the ground. They are found in settlements and graves from the 10th--13th centuries. By the Slavs, they were linked to the thunder god Perun who released light – a life-giving force. They were believed to mark a place of contact with hostile powers or, after Christianisation, were thought to be a proof of the activities of saints. Belemnites could be used for magical purposes or as healing amulets. Curing methods, involving rubbing or ingesting them in powdered form, are known from ethnographical records. Belemnites were used to relieve eye diseases, stomach, head, tooth and joint aches, in cases of difficult childbirth, to heal wounds and ulcers, to treat fever, haemorrhages, and to reverse charms. (Banasiak 2017: 70-72).


**Fig. 63.** Broadleaf plantain (*Plantago major*)

The broadleaf plantain (*Plantago major*, Fig. 63) is one of the seven most important medicinal plants mentioned by Albert the Great and described by St Hildegard. In the Middle Ages, the plantain was one of the symbols of the Virgin Mary. It was depicted in representations of so-called enclosed gardens (*hortus conclusus*) which were metaphors for Mary's personal features, in paintings and tapestries (Michniewska 2014: 12). Historically, it was used to treat respiratory and skin disorders. Szymon Syreniusz considered powdered or mashed plantain leaves to be an excellent remedy for inflamed skin lesions, wounds and burns. According to this author, plantain leaves were said to reduce swelling, so people who walked a lot should wear them inside their shoes. The herb was also supposed to cleanse the body of venom after a snake or scorpion bite (Nowiński 1983: 156-157). Presumably, remains of plantain found

in a woman's grave in the monastery cemetery may have served as a medicine. This interpretation is suggested by the presence of belemnite in the burial which was also attributed medicinal properties in the Middle Ages.

## 4.2. Wood shavings, sawdust, and common hop in coffin linings and cushions in the medieval and modern periods

Dry shavings or sawdust provided isolation and absorbed moisture from the dead body. The organic filling of the cushions or mattresses added volume and ensured a dignified presentation of the corpse. Furthermore, shavings of resin-saturated wood could have acted as antiseptics and aromatised the body. A medieval burial of an unborn child was found at Wymondham Abbey in Norfolk County, United Kingdom (Cat. O6). The foetus was wrapped in linen cloth, filled with soda, cumin and coriander seeds as well as wood shavings. The whole was placed in a linen bag filled with cumin, then embedded in resin and encased in a lead shroud. Undoubtedly in this case the shavings were used to preserve and perhaps aromatise the corpse (Gilchrist and Sloane 2005b, 109).

Shavings or sawdust in coffins are most often located at the bottom of the casket. At Lüneburg monastery they were spread on the bottom of the coffin of Eleonora Margaretha von Harling (Cat. H110), deposited in the north-western part of the crypt under the Chapel of St Barbara. The waste wood remaining from coffin making was probably found in the burial of Caroline von der Wense (Cat. H111) who died in 1838 and was buried in the same crypt. The bottom of her coffin contained waste from wood planing, pegs and larger fragments of wood (Ströbl and Vick 2005, 23; Wiethold 2005: 32).

Shavings covered the bottom of the coffin of Marketa Františka Lobkowicz buried in the Church of St Wenceslas in Mikulov (Cat. K8; Drozdová 2006: 97). In the coffin of Bishop Winstrup from Lund Cathedral shavings were placed between the lower cushion and the lining (Cat. N11; Lagerås 2016a, 2016b: 23). Pine shavings were also found spread on the bottom of a coffin discovered in Crailsheim, Baden-Württemberg (Cat. H2).

The use of sawdust or shavings as coffin filling seems to be common in Northern Europe. Archaeological investigations of burials deposited in the crypts of St Olaf Cathedral in Helsingør have brought the discovery of two cases of shavings being used as coffin linings. It is likely that the sawdust was used to form a lining under the body of Ann Belfour (Cat. C13) who died on 1 November 1793 (Cat. C13). One sample from the burial of Hans Andreas Nordborg dated 1694 (Cat. C2) contained shavings mixed with the remains of other plants: hop, grains of barley (*Hordeum vulgare*), pea seeds (*Pisum sativum* L.), rue (*Ruta graveolens* L.), juniper (*Juniperus communis* L.) and hyssop (*Hyssopus officinalis*). The plants may have originally come from the lining or formed bouquets, traces of which were recorded during the exploration. In the burial of another man in St Olaf Cathedral in Helsingør (Cat. C10) from around 1760, a mattress and pillow filled with wood shavings were found (Karg 2001: 134-136).

Shavings and sawdust were also used as coffin fillings in Sweden and Finland. A mattress filled with shavings was discovered in a child's grave in Keminmaa (Cat. E2; Tranberg 2015: 197). In Tornio, sawdust was recorded in several modern coffins (Cat. E5; Tranberg 2015: 195). It has also been found in one of the burials of Soldan family members in a church crypt in Sura, Sweden (Cat. N22; Tagesson 2015: 19-38).

The presence of wood chip remains mixed with hops was identified in the burial of Weighard von Promnitz (Cat. J254) from Pszczyna. The pillow and mattress from the boy's coffin contained common hop cones, shavings and twigs of coniferous trees. Under the mattress, remains of edible plants were found (Botor 2012). Sawdust was recorded during the exploration of the coffin of Susanne Hedwig von Schaffgotsch (Cat. J117), buried in Świebodzice, from the 17th century. The lining of wood shavings was also revealed in the burial of a child in Byszewo from the late 18th/early 19th century (Cat. J2).

Caspar Ernst von Normann (Cat. H42) who was buried in the church at Illmersdorf in Brandenburg, was laid on a bedding that consisted of a thick linen cloth spread over the bottom of the coffin. Wood shavings were placed on top of the fabric. They were covered with a damask cloth which formed a kind of makeshift mattress. The body in

the coffin was covered on the outside with a layer of wood shavings (von Scheven 2012: 87). Wilhelm Erdmann von Normann (Cat. H43) who died in 1806, was laid on a padding of shavings covered with white linen which was nailed to the walls of the chest (von Scheven 2012: 95). Caroline Louise von Schönberg (Cat. H44) who died in 1821, was buried on a padding of shavings covered with white linen and a silk cloth.

Wood chip linings were also recorded in coffins from the crypt of the church in Menkin, dating to the 17th--19th centuries (Cat. H55; Jungklaus and Vick, 2012: 71), in Oppenheim (Cat. H132, H133), and in Trendelburg (Cat. H94). In the coffin of Wilhelm Heinrich von Nassau-Saarbrücken (Cat. H130) who died on 24 June 1768, shavings left over from the coffin production were discovered under the mattress (Bernard 1996). Wood shavings were found in the coffin of a woman buried in the Carmelite Church in Basel (Cat. M3), in Berlin in the cemetery at St Hedwig's Church (Cat. H34), the crypts under the parish church of Berlin-Mitte (Cat. H23, H30), and in Cloister Church in Riesa (Alterauge and Hofmann, 2020: 81).

The presence of shavings in coffins has so far been recorded most abundantly in burials in crypts under the Church of the Name of the Blessed Virgin Mary in Szczuczyn. Shavings at the bottom of the coffin were found in the burials of Piarists from the eastern crypt B – of Joseph of St Leonard (Cat. J227) who died on 14 June 1719, and Georgius Wermutter (?) (Cat. J239) who died in July 1801 (Dudziński *et al.* 2017: 50, 66,67, 124, 138, 141). Hilary of St Anthony was buried on a layer of sawdust with a linen-covered pillow also filled with it (Cat. J229; Dudziński *et al.* 2017: 56-58, 130-131). The sawdust pillows were recorded in the coffins of Ladislaus of Ascension (Cat. J235) who died on the 2 August 1777 (Dudziński *et al.* 2017: 52, 125-126), and Luke of St Stephen (Cat. J233) who died on the 27 February 1765. The last burial also contained a sawdust mattress (Cat. 52; Dudziński *et al.* 2017: 62, 135). Rajmund of St Joseph rested on a linen mattress and a pillow filled with herbs and sawdust (Cat. J237; Dudziński *et al.* 2017: 58-59, 131-132). A pillow filled with hay and sawdust was placed in the coffin of Philip of St James who died on 9 October 1798 (Cat. J238; Dudziński *et al.* 2017: 65-66, 138). The presence of sawdust which is difficult to associate with a mattress, pillow or coffin filling, was found in two burials. In the coffin of Damian of St Adrian who died on 1 February 1768, a small amount of sawdust was recorded in the upper body area (Cat. J234; Dudziński *et al.* 2017: 71, 146). In the coffin of Bernard of John the Baptist who died on 25 March 1755, the linen pillowcase was filled with herbs, while the significant number of shavings observed in the coffin mixed with eggshells, among other things, occurred outside the pillow (Cat. J230; Dudziński *et al.* 2017: 63-64, 136-137). A cushion filled with shavings was found in the coffin of an approximately 2-4-year-old child from the eastern crypt B under the chancel of the church (Cat. J205). A filling of herbs and shavings was contained in the coffin of a 3-4-year-old child from the eastern crypt A (Cat. J213). In the burial of a 3-month--old infant from the same crypt, the filling of the bottom of the coffin consisted of herbs, hay and wood shavings (Cat. J219). A child buried in the west crypt B rested on a bedding of sawdust (Cat. J174).

In Kinnoul Cemetery, Scotland, in graves dating from the 18th-19th centuries, the filling of the bottom of the coffin consisted of wool, or compressed shavings/straw coated with a resin-like substance. A pillow filled with shavings was found in Bond Street Congregational Chapel Cemetery, Leicester (Mytum and Burgess 2018). Coffins excavated at St Paul's Cemetery in Sheffield were almost entirely filled with shavings and sawdust (Cat. O78; Mahoney-Swales *et al.* 2011: 223). Sawdust was also recorded in burials (Cat. O12-O16) at Spitalfields in London. A box filled with shavings was found in one of the coffins at the feet of the deceased. Sawdust linings have been observed in St Luke's Church (Islington), St George's (Bloomsbury) and St Nicholas (Sevenoaks) in London (Boyle *et al.* 2005: 87).

Shavings have been discovered in burials in the Church of the Assumption of the Blessed Virgin Mary in Lublin in eastern Poland, from the 2nd half of the 19th century (Cat. 102 J156-J157), and in a former Protestant cemetery located in the defunct settlement region of Tormersdorf-Toporów in western Poland, from the first half of the 20th century (Szczurowski *et al.* 2020: 110). The xylological analysis of the shavings remains discovered in Lublin concluded that they originated from Scots pine (*Pinus sylvestris*).

Sawdust was also found under an 18th-19th century coffin (Cat. O79) in the Sheffield Unitarian Chapel. They may have served to absorb fluids leaking from the coffin and minimise the odours. However, wood shavings may have been in the ground beneath the building, as, for example, a remnant of its construction (Mahoney-Swales *et al.* 2011: 228).

Wood shavings were usually covered with fabrics or sewn into mattresses and cushions. They are often found in combination with hops, hay or other plants, and serve the same functions as any type of dry organic matter. Much less commonly observed is the custom of covering of bodies with shavings or sawdust. This may have taken place after the presentation of the corpse was finished. The use of shavings as a lining of the bottom of the coffin, without attempting to cover them with fabric and create the illusion of a mattress, also appears to be a very rare practice. The wood shavings or sawdust linings were probably not intended to be seen by funeral attendees.

The folk-magical rationalisation of this custom has included the belief that the shavings and sawdust from the production of the coffin should be given back to the deceased. All items used in process of preparing the deceased for burial were banned from re-use. Also, the wooden coffin measurement rod was becoming non-reusable object. In the 19th century, carpenters collected sawdust and shavings and threw them inside the casket, as it was believed that person touching them would soon die. The left-over sawdust sealed the coffin bottom and minimised movement of the body inside. No information was found as to whether in any of the cases there was a match between the species of wood from which the coffin was constructed and the shavings discovered inside it, confirmed by xylological examination. In Szczuczyn samples of wood shavings which were found on the bottoms of the coffins or were the filling of the pillows and mattresses, were collected for identification (Michalik 2023).

Shavings, bark, cones and branches, were believed to contain some of the power of the trees from which they were collected. In Northern Europe, until the 20th century survived the beliefs in the strength contained in organs of certain trees, to keep the spirit of the deceased in the grave. In Poland, the oak was regarded as a tree endowed with such a power, to prevent the return of the dead. The use of birch bark which had been present in the funeral ritual of the Saami since the Middle Ages was most widespread in Finland in the 17th-19th centuries. Spruce twigs were chosen almost twice as rarely to make a lining or cover the corpse in the coffin. There were also cases of using both materials in one burial (Tranberg 2015: 192). The functions of wood shavings can be understood in two ways. They were used for the temporary preservation of the body, the aromatisation of the coffin and to absorb moisture in order to keep the corpse in good condition until the funeral. Certainly, the use of wood shavings in combination with aromatic hop cones containing bactericidal substances indicates such a purpose. Coniferous tree shoots contain essential oils that demonstrate antibacterial and antifungal effects, while shavings are rich in fragrant resins.

However, the presence of any plant matter in burials can ultimately accelerate decomposition of the corpse by slowing down the temperature rendering process. The effect of the coffin lining and covering the body is thermal isolation. The heat generated during decomposition of the corpse is retained inside for longer. In addition, the decay of plant matter results in the generation of additional heat. The heat accelerates the process of autolysis and consequently increases the rate of decay. Higher temperature also results in increased bacterial proliferation (Mant 1987: 71).

Presumably, the accelerated skeletonization and decomposition of corpses, especially those deposited under the church floors, would also have been desirable for hygienic reasons. In older burials, for example, the use of lime has been recorded as speeding up the decomposition process. In London, it was moreover recorded that a significant volume of sawdust or shavings in coffins correlated with poor skeletal preservation. In the acidic environment created by the decomposition of sawdust or shavings, a process of leaching of inorganic minerals from the bones takes place (Waldron 1987: 56-57). The faster decomposition of bodies ensured that the area could be reused for new burials.

Common hop (*Humulus lupulus* L.) was very often placed in coffins in early modern Central and Northern Europe. The finds are mainly centred on the western coastal zone of the Baltic Sea and the areas bordering it. It was used to fill grave linens and to pad the coffin bottoms.

Common hop was already observed during the first scientific exploration of the crypts of Wawel Cathedral in Kraków in 1791, in the coffin of Polish King Sigismund Augustus. A witness to the opening of the King's coffin, Tadeusz Czacki, in a letter to Bishop Adam Naruszewicz, stated that the King "lies uncovered in a tin coffin made 'en bas rélief', i.e., a convex-cut coffin; covered with hops so well preserved those 218 years of being in the tomb makes no difference to his freshness" (Grabowski 1868: 21). This information was confirmed during the re-examination of the royal coffins carried out in 1929-1930 when the presence of common hop was recorded among the mortal remains of Queen Anna Jagiellon and also King Stephen Bathory which was in accordance with preserved historical descriptions of royal funerals (Rożek 2008: 191). Because botanical analyses were not carried out then, it is doubtful whether the composition of the plants contained in the Wawel coffins was not in fact more diverse.

In the 1950s, there was an accidental discovery of the burials of the last Dukes of the Mazovian Piast line, Janusz III and Stanisław, in the crypt under the presbytery of St John's Archcathedral in Warsaw. According to initial reports bodies were buried with common hop remains, but a botanical analysis carried out almost twenty years later revealed only one seed of this plant in samples taken from the coffin of Stanisław (Cat. J182; Pela 1997: 18). Hop has been identified in the burials of aristocrats buried in the church of St Jürgen in Gettorf (Schleswig-Holstein). Detlev von Ahlenfeld (Cat. H156) who died in 1644, originally rested on an unpreserved mattress and possibly also a pillow, filled with hop blossoms. Coffin of Brigitte von Ahlefeldt (Cat. H155) who died in 1632, was furnished with a cushion filled with hop. In an article on the Gettorf sarcophagi, this observation was compared with a younger burial from Königslutter (Lower Saxony) in which remains of common hop were also found (Zöllner 1974, 188-196; Ströbl and Vick 2009: 316).

Linings with predominantly female hop blossoms were discovered in the burials of nuns in the crypt beneath St Barbara's Chapel in Lüneburg. In two coffins (Cat. H107, H109), the lining consisted of fragments of stems, leaves, female flowers and infructescence of common hop. Dorothea von Meding who died in 1634, was buried in a painted coffin. The body rested on its back in a straight position, the arms were bent and placed at chest level. On the chest was a small bouquet of natural plants. The filling of the coffin consisted mainly of stem fragments, fruit and female flowers of common hop (Wiethold 2005: 29-32). The burial of Johanna Dorothea Maria von Estorff (Cat. H109), fell during the hop cone harvest season.

Only female flowers and hop cones were found in the coffins from the Lüneburg crypt. It is possible that the hop cones (strobili) were used in the burials due to the significant availability during the season of harvest. They were most likely gathered as the raw material for beer brewing. Hops may have been cultivated in the convent for economic purposes. In cultivation, strict care was taken to ensure that all plants were female. In the Lüneburg crypts, the hop linings also contained a significant admixture of cereal grains, also ingredients of beer brewing.

It is likely that the pillow and mattress from the coffin of Elsa Beata Brahe (Cat. N8) buried in Brahe Church on the island of Visingsö were filled with hop and rose petals. Hop was also identified in the burial of Peder Winstrup (Cat. N11) in Lund Cathedral. A bouquet of hop and lemon balm (*Melissa officinalis*) was discovered in the burial of a child from the Church of Our Saviour in Copenhagen (Cat. C16). A pillow filled with hops was discovered in the coffin of Birgitte Gøje buried in 1574 in Næstved, Denmark (Cat. C24).

Hop infructescence were placed in the bottoms of coffins at St Olaf Cathedral in Helsingør. The burials date from the 17$^{th}$-18$^{th}$ centuries. Hop fruit was in the lining of the coffin of Anne Magdalene Ferslev (Cat. C14) who died on 2 August 1795. Anne Magdalene was additionally sprinkled with hop cones which formed a cover about 10 cm thick. Almost exclusively made of hop fruit were the coffin linings in five other burials, dating from 1600-1760 (Cat. C3, C3, C4, C8, C9). One of the deceased was buried in winter. One of the deceased was buried in winter. The coffin from the early 1700s contained a pillow filled with hop fruit (*Humulus lupulus* L.) and a single leaf along with shoot of rosemary (*Rosmarinus officinalis*) (Cat. C11). At Helsingør, the co-occurrence of hops with cereal remains was reported in burials dating from c. 1700-1760. An infant (Cat. C7) buried c. 1700 rested on a bedding of hop

cones. The sample contained also17 grains of oats (*Avena sativa*, Fig. 64), 2 seeds of corn marigold (*Chrysanthemum segetum*), 1 seed of devil's-bit (Succisa pratensis), 1 seed of stickwort (*Spergula arvensis* L.), fragments of an ear of barley (*Hordeum vulgare*), straw, and heads of flowers of the *Compositae* family. Corn marigold and flowers of the *Compositae* family can be distinguished in the material as the ornamental plants. Stickwort is a weed of cereal crops and flax, and may have found its way into the coffin by chance along with the cereals (Karg 2001: 133-142).

Hop has been found inside pillows in the graves of members of the Griffin dynasty buried in the crypt of St Jack Church in Słupsk (Cat. J269, J270). In the filling of the pillows in addition to common hop were identified mugwort (*Artemisia*), St John's wort (*Hypericum maculatum*), and in the pillow from the coffin of Duke Ernst Bogusław also rosemary (*Rosmarinus officinalis*) (Rawa-Szubert *et al.* 1981: 76). A cushion filled with hop was also discovered during research in the Church of the Blessed Virgin Mary Queen of the World in Stargard (Cat. J271).

Hop was found in the lining of the coffin of an over 50-year-old woman buried in the crypt beneath the Jasna Góra church in Częstochowa (Cat. J247). The significant concentration of plant matter in the head area suggests that botanical remains are the filling of an unpreserved cushion. In addition to common hop, the coffin filling contained the remains of five species of wild plants: twigs of wild elderberry (*Sambucus nigra* L.), leaves of bog bilberry (*Vaccinium uliginosum* L.), twigs of pedunculate oak (*Quercus robur* L.), flower/fruit or fruit of mullein (*Verbascum* sp.), inflorescence of hawkweed (*Hieracium* sp.). In addition, there were fragments of broken stems of garden dill (*Anethum graveolens* L.). This is likely to be a largely random assemblage of plants collected from the wild. It may be presumed that the remains of cultivated plants – hop cones and fragments of dill stems, and possibly elderberry and oak − which have had the status of plants assigned the death symbolism for centuries, were deliberately placed in the burial of the woman. The remaining species are representatives of the forest flora and plants inhabiting the scrub at the edge of the forests (Galera *et al.* 2013: 181-295).


**Fig. 64.** Oat (*Avena sativa*)

Buried on a cushion containing hop cones was also Weighard von Promnitz (Cat. J254) who died in 1646 and was laid to rest in the crypt of All Saints' Church in Pszczyna (Botor 2012). The remains of hop comprised the filling of a pillow from the coffin of Johannes Heinrich I. von Hochberg buried in Świebodzice (Cat. J118; Kulpa *et al.* 2019, 136-137).

Hops have also been identified in the crypts of the parish church in the Berlin-Mitte district, in coffins of burghers from the 18th-19th centuries (Cat. H23), coffins of the Winterfeld family (Cat. H55) from Menkin from the 17th-19th centuries (Linnebach 1994: 40), and in Bytom Odrzański. Hans Friedrich von Rochow (Cat. H38) who died in November 1787, rests on a pillow filled with hop in the crypt of the von Schlabrendorff family in the cathedral in Brandenburg an der Havel (Diane 2004: 101--104). Recently, research of a cushion from a child's grave

from the Holy Trinity Church in Byszewo which is dated to the 18th/19th century, was published (Cat. J2). A pollen analysis was carried out which identified twenty-nine taxa. The sample contained mainly pollen of mugwort (*Artemisia* 35%), mint (*Mentha* 13.2%) and plants of the *Apiaceae* family (*Apiaceae* undiff 6.3%)[5].

Macroscopic observations revealed nine taxa, among which the most abundant were remnants of common hop (*Humulus lupulus*), mainly fragments of female inflorescences. In addition, there were fruit of stinking chamomile (*Anthemis cotula*), lesser burnet (*Pimpinella saxifraga*), flax (*Linum usitatissimum*), plants of the knotweed genus (*Polygonum* sp.), plants of the *Apiaceae* family, and panicles (*Poaceae*). The sample also contained a perianth of the plant from the *Malvaceae* family, rosemary (*Rosmarinus officinalis*) leaf fragments, moss residues, fungal spores and unspecified vegetative parts of herbaceous plants (Jarosińska *et al.* 2019: 190-192).

The youngest burials, in which hop remains have been discovered, are the graves of Karl II. Grand Duke of Mecklenburg-Strelitz who died in 1816, and Georg Grand Duke of Mecklenburg-Strelitz who died in 1860, located in the Johanniterkirche in Mirow, Mecklenburg-Vorpommern (R. Ströbl 2009: 10-14, 2011a: 154).

The common hop (*Humulus lupulus* L.) is a dioecious perennial. It occurs in forests, gardens, parks in temperate climates. Hop is cultivated throughout Europe, North America and part of Asia. It blooms from July to September. The female plants produce cones. The hop inflorescences in the shape of light green cones (strobiles) turn brown as they ripe. They are harvested in August and September. The powder from the glands is a medicinal raw material. The glands secrete essential oils, tannins and bitter substances specific to hop – lupulin and humulin. Lupulin has a calming or, in larger doses, a sedative effect. Hop is one of the few herbal products suppressing the human sex drive. It lowers blood pressure,relaxes, stimulates the secretion of the digestive glands and exhibits mild antibacterial effects (Lewis *et al.* 1949: 918).

It was used as a spice added to the wort during beer production and as its longevity agent. The German Purity Law forbade the use of any other plants for this purpose except for hop, which, unlike other herbs, resulted in sedation of people drinking alcohol seasoned with it (Łuczaj 2013: 59). Hop was grown near towns, in gardens (Wiethold 1995: 69) owned by brewing townsmen or small farmers (Klonder 1983: 101). Hop gardens were also established at monasteries (Sulkowska-Tuszyńska 2006: 179).

It was not until the late Middle Ages that hop began to be employed in medicine, but it was handled with some caution. Stefan Falimirz warned that hop "should not be eaten frequently, as it opens the ends of the veins." He classified it as a *vegetabilium* "warm and dry, as it tends towards coldness in the first degree" and recommended using it as a remedy for fevers and pains (Falimirz 1534: 72). Marcin of Urzędów noted that hop flowers have a warming and drying effect due to the influence of the sun, from which they draw their power. The consumption of hop in beer "[...] infects peasants so much that having drunk beer, they lie like stones, lose their minds, have no vigilance, being human, they become beasts [...]." Picking hop blossoms was said to cause "a great head infection" and fainting. Decoctions made from hop shoots were supposed to relieve pains, fevers and purify the blood (Marcin of Urzędów 1595: 226). *Flores and fructus lupuli* were sold as soothing, diuretic and stomach-strengthening remedies. They were ingested in the form of infusions. The powder sieved from the cones was also available in pharmacies (Wiethold 1995: 30).

The observed co-occurrence of hop remains and ears or cereal grains in the graves may be a result of the use of domestic or household waste, such as that left over from beer production, as the linings. The dates of the burials of the individuals that were successfully identified fall within the range of the whole year (from February to November). Hop used in graves probably came from stockpiles. Hop cones stored as raw material spoil relatively quickly becoming unusable for brewing purposes. The use of discarded raw material in burials is therefore likely.

[5] According to the authors of the study, the significant proportion of pollen from mugwort (*Artemisia* 35%), mint (*Mentha* 13.2%) and plants of the celery family (*Apiaceae undiff* 6.3%) in the sample which amounts to more than half of the volume, may indicate their deliberate use in coffin preparation. The less commonly identified plants may have found their way into the coffin by accident, e.g., as contaminants previously present on the plants. The burial probably took place in August (Jarosińska *et al.* 2019: 190-192).

According to written accounts, the bodies of the rulers of Poland, after embalming, were covered with hop, herbs, cotton or lime in order to dehydrate them (Rożek 2008: 173). Properties of hop which was supposed to be "warm and dry", seemed important for the process of bodies desiccation.

In an article published in "Etnographisch-Archäologische Zeitschrift", hop is considered as one of the non-Christian burial furnishings used to close off the way for the dead to return to the world of the living (Ströbl and Vick 2009: 311-326). Placing hop in graves has also historically been regarded as a manifestation of folk superstition (Zöllner 1974: 196; Karg 2001: 403, 404). On the territory of Poland, hop has probably served as a wedding and ceremonial plant since the early Middle Ages.

In the modern period there was a belief, derived from ancient sources, that the placing of certain plant species under the pillow would induce sleep. The soporific properties of hop may have led to its association with funerals, perhaps hoping that placing it in pillows under the heads of the dead, supernaturally calmed their souls.It could alsohave been considered as a mediator, aiding the transition of a dying person to afterlife.

## 4.3. Filling of pillows, mattresses and coffin bottoms in the modern period

The bottoms of the coffins were sometimes filled with dry material of organic origin. This was most often hay or straw, herbs, moss, needles, bark, sawdust or wood shavings (Kizik 2001: 91). The lining absorbed the fluids exuded by self-decomposition or decay of the body. The dry matter was covered with cloth or left uncovered. Textiles made from various raw materials were used for this purpose. There were also mattresses containing filling of organic origin (Drążkowska 2005b: 17). In the case of burials with organic filling of the coffin bottom, there is always a chance that the fabric originally placed there disintegrated without leaving a trace.

Mattresses and cushions were used to arrange corpses displayed at homes or to in public. In the case of wealthy people, the washed and dressed corpse was placed on a bed in a decorated parade hall or in a private chapel of a palace, castle or manor house. The body was then displayed in the church or chapel where the funeral mass was held (Chrościcki 1974: 48). The custom of displaying the bodies induced a need of their aesthetic presentation. Pillows and mattresses facilitated the arrangement of the corpse and helped to create an impression of the richness of the coffin furnishings. Over time, laws banning opening of the coffins during funeral ceremonies were ordered in cities (Kizik 1998: 86).

The study of modern grave pillows discovered during the archaeological excavations conducted by Anna Drążkowska shows that in most cases they were prepared purposely for burial. This is evidenced by the applying of low-maintenance solutions, such as cutting pillowcases from a single rectangular piece of fabric, using sparse seams and pinning of the decorations. Pillows were often made from the same fabric as used for grave clothes and coffin upholstery (Drążkowska 2007b). The most popular raw materials were linen and silk. The burial of Bishop Franciszek Szembek in Przemyśl contained a pillow made of leather (Pińska *et al.* 2015: 319).

Coffin pillows were filled with materials of organic origin: herbs and mixtures of herbs, hay, moss, needles, flax tow and feathers. In the Archcathedral of St John the Baptist and St John the Evangelist in Lublin, a pillow filled with garlands of natural plants was found (Drążkowska 2014: 321).

In the modern period, bodies of the deceased placed in coffins were covered on top with herbs for preservation, so botanical remains found on the bottom may not originate from lining or cushion. The displacement of botanical remains from head ornaments or other coffin decorations should also be taken into account in the interpretation of the finds.

In the modern period, in addition to pillows serving as head support, special, smaller sized aromatic cushions were used. Most often, however, a pillow filled with herbs combined both functions. Objects serving exclusively to emit a pleasant scent, such as pomanders (Grupa *et al.*, 2015: 35) and potpourri pouches which contained strongly scented plants, have also been discovered in coffins (Kizik 1998: 92). The herbs inside the cushions had hygienic, preservative and aromatic functions. In the coffin of Bishop Peder Winstrup, buried in the cathedral of the Swedish

Evangelical Lutheran Church in Lund, two pillows were found. The larger one supported the body in the correct position, while the other, placed underneath it, contained aromatic herbs: lavender, hyssop, lemon balm, and dwarf everlast flowers (*Helichrysum arenarium*) (Lagerås 2016a, 2016b: 17).

According to Anna Drążkowska, in the modern period, the dead were equipped with the pillows on which they could have slept during their lifetime. These included, in particular, the grave pillows filled with feathers. Pillows containing feathers have been discovered, e.g., in the medieval burial of Bishop Stefan in the Cathedral Church in Wrocław (Wojcieszak 2012: 25), in the Church of St John in Gdańsk (Drążkowska 2007b: 415), and in the burial of a child in Szczuczyn (Grupa *et al.* 2014: 126).

Ethnographic reports show that in rural areas of Central Europe in the 20th century, it was avoided to lay dying people on feather filled beddings. It was believed that pillows filled with it should be removed from under moribund heads, as it would delay the death and could lead to the soul becoming attached to a comfortable bed. Also, St Hildegard warned against dying on feathers (Biegeleisen 1930: 139-140).

Hay was among the common raw materials used to fill the bedding. Hay in the 16th and 17th centuries symbolised the passing of temporal things. Graphics depicting a bale of hay or a putto with a sheaf in emblems bear the Latin motto *Hoc omnis caro* ("It is all flesh") (de la Feuille 1697: 31/4). The emblem refers to Ecclesiasticus: "Like abundant leaves on a spreading tree that sheds some and puts forth others, so are the generations of flesh and blood: one dies and another is born" (Sirah 14:18) or Isaiah (Isaiah 40:6). The coffins also bore the very quotations from the Old Testament, to which the emblems referred. The decoration of the coffins was dictated by the social affiliation of the deceased. The coffins displayed symbols of faith, resurrection, vanitas, or signs characterising the deceased. Decorations and inscriptions were chosen from pattern manuals (Kizik 2001: 206-207). The emblem *Hoc omnis caro* was depicted on the sarcophagus of Princess Sophie Magdalena, daughter of Johann Christian von Brieg who died in 1660, stored in the Museum of the Silesian Piasts at Brzeg Castle.

Hay has been recognised in relatively many medieval and modern burials. It was found in Zeitz Cathedral where it formed the coffin lining (Cat. H145). Numerous species of grasses and meadow weeds were recognised in the cushion from the burial of a man in Warsaw Cathedral (Cat.J184). A mattress and a pillow in the coffin of Bishop Hieronim Wielogłowski (Cat. J261) from the crypt under the Archcathedral in Przemyśl from the 1760s, were filled with hay. Among the grasses identified were meadow foxtail (*Alopecurus cfr pratensis* L.), common crested grass (*Cynosurus cristatus* L.), meadow fescue (*Festuca pratensis* Huds.), common meadowgrass (*Poa pratensis* L. S. Str.), sweet vernal grass (*Anthoxanthum odoratum* L. S. Str.), rough meadowgrass (*Poa trivialis* L.). Other plant species recognised were common mouse-ear chickweed (*Cerastium holosteoides* Fr. Emend Hyl.) and plants of the carnation family, which are common meadow weeds (Pińska 2012: 10).

Hay was also identified in the pillows and mattresses inside the coffins from the Church of the Name of the Blessed Virgin Mary in Szczuczyn (Cat. J206, J208, J209, J210, J216, J218, J219, J225, J236, J238). One of the deceased children (Cat. J204) was covered with a quilt filled with moss and hay. The coffin also contained a pillow filled with herbs and feathers and a mattress containing hay and moss. A wreath of living plants was placed on the head of the child (Grupa *et al.* 2014: 102).

A pillow from the coffin of Ursula von Schlabrendorff (Cat. H36), laid to rest in the crypt at Brandenburg an der Havel Cathedral in 1705, was filled with hay (Diane 2004: 101-104). Hay has been observed in burials in Sura (Sweden) from the 18th century (Cat. N22), Tornio (Finland; Cat. E5), and Christ Church in London (Cat. O15, O16). Cushions, filled with straw, hay or brushwood were identified in Riesa Cloister Church (Alterauge and Hofmann 2020: 81).

The coffin of a child from the 18th-19th century (Cat. H26), deposited in the crypt under the parish church of Berlin-Mitte, contains a cushion and a lining of seagrass. In the burial of an adult (Cat. H25) in the same crypt, also a cushion made of seagrass (*Zostera maritima*) was found (Wittkopp 2015: 58). Seagrass was formerly used to fill mattresses and upholstered furniture. In these two

cases, the use of personal bedding of the deceased can be assumed.

Plant-based filling for cushions, mattresses and coffin bottoms can be divided into two main types. The first includes deliberately composed mixtures containing cultivated plants, with cereals, straw, hop, ornamental and edible plants along with crop weeds. Spices and herbs of Mediterranean origin can also be included in the same group. Within the second falls a collection of plants that, under natural conditions, choose one type of natural or transformed by anthropogenic factors habitat. These are plants originating from a specific ecological niche, collectively acquired through a single harvest.

The fillings of cushions, mattresses and coffin bottom linings were created more often than the other burial furnishings from local plants collected from the wild. It is also apparent that there was greater species diversity in the linings than in the other burial furnishings. Many of the specimens were accidentally deposited in the coffins, along with harvested grass (or hay), straw or moss.

There is always a need to analyse the plant composition of burials in comparison to the local flora. However, in the botanical materials from coffin cushions, mattresses and linings, it is possible to identify recurring plant species that were used in funerals in a similar way throughout Europe north of the Alps.

It is likely that the occurrence of medicinal cultivated herbs in the composition of coffin linings should be linked to the tradition of embalming corpses that developed among the clergy and the elite (probably first in the area of widespread Mediterranean herbs).

The species that appear most frequently in a funerary context include, in addition to the boxwood, juniper, clove and rue described above, also oregano (*Origanum vulgare* L., Fig. 65), garden dill (*Anethum graveolens*, Fig. 66), hyssop (*Hyssopus officinalis*, Fig. 67), southernwood (*Artemisia* sp.) or mugwort (Fig. 78), thyme (*Thymus* sp.,), rosemary (*Rosmarinus officinalis*, Fig. 43), lavender (*Lavandula* sp., Fig. 70), chamomile (*Matricaria* sp., Fig. 71), henbane (*Hyoscyamus niger*), coriander (*Coriandrum sativum*, Fig. 72), St John's wort (*Hypericum* L.) and yarrow (*Achillea millefolium* L.). Attention should also be drawn to the frequent selection of plants from the Labiateae family which, in addition to the above-mentioned hyssop, thyme, rosemary and lavender, include catnip (*Nepeta*, Fig. 29), black horehound (*Ballota nigra*), lemon balm (*Melissa*, Fig. 34), basil (*Ocimum basilicum*), sage (*Salvia officinalis*), mint (*Mentha* sp.), and savory (*Satureja*). *Compositae* (*Asteraceae*) and umbelliferous families are also among the more abundantly represented.


**Fig. 65.** Oregano (*Origanum vulgare*)

The results of an analysis of written sources – funeral bills and embalming recipes preserved in Western and Southern Europe, dating from the Middle Ages to the end of the modern period − were recently presented by Rémi Corbineau (Corbineau and Georges-Zimmermann 2015). The most common plants in the sources belong to three families – the *Labiateae*: basil, savory, hyssop, lavender, marjoram, lemon balm, mint, oregano, garlic, oregano,

rosemary, thyme (*Thymus vulgaris*), creeping thyme (*Thymus serpyllum*), sage, white horehound; the *Compositae* (*Asteraceae*): mugwort, southernwood, wormwood, cornflower, chrysanthemum, burdock, chamomile, tansy; and umbelliferous (*Apiaceae*): aniseed, angelica, fennel (Fig. 73), masterwort, coriander, dill and cumin. In addition, there are resins, gums and exotic spices: cardamom, cinnamon, ginger, various types of pepper, calabash and nutmeg (Corbineau and Georges-Zimmermann 2015: 165-167).

**Fig. 66.** Dill (*Anethum graveolens*)

The plant species discovered inside the cushions and grave linings in Europe north of the Alps mostly represent plants belonging to the same three families mentioned by the written sources on embalming methods. The purpose of using herbal cushions and linings was to preserve the body and to disinfect it. Filling the inside of bodies, clothing, shrouds and coffins with herbs is among a range of practices associated with various embalming techniques. It is likely that herbal coffin linings originated from the practice of embalming, as indicated by the occurrence of Mediterranean plants or their local equivalents in graves, seen throughout Europe. The deviations from the rule can be explained by regional modifications, inaccessibility of raw materials, inability to identify plants correctly, use of linings containing plants from a single habitat and a single harvest, use of waste in periods of plants unavailability.


**Fig. 67.** Hyssop (*Hyssopus officinalis*)

The composition of the linings was probably influenced by medical prescriptions and recommendations in case of an epidemic, spread by word of mouth, written and printed. The linings contents may illustrate former medical knowledge, both folk and official. The possible mecha-

nism for the penetration of embalming recipes into the popular consciousness is difficult to determine, but it may have depended on the principle by which official medicine and folk herbalism operated together in the past, drawing on each other. The nature of the sources for this study should be noted among which elite burials from crypts and churches predominate. Easier access to both knowledge, medicine professionals and various plant species was associated with higher material status.


**Fig. 68.** Breckland thyme (*Thymus serpyllum*)

Medicinal and magical plants with longer local traditions, known, harvested and used for various economic and non-economic purposes for centuries, appear in linings and cushions more often than in other elements of grave furnishings. Bedding and cushion preparing was not regulated by liturgy, ecclesiastical orders or even secular law regulations, and was probably greatly influenced by local traditions and folk beliefs. In the material collected, magical plants with a medieval tradition can be singled out, such as devil's-bit, bishopwort, oak, wild elder, dwarf elder, St John's wort, yarrow, campion, bracken, shepherd's purse, or viper's bugloss.


**Fig. 69.** Common thyme (*Thymus vulgaris*)

Lining and mattress makers were probably more focused on achieving larger volumes than on selecting plant species precisely, resulting in a less meticulously chosen compositions and a significant number of random supplements. Aromatic cushions which contain more carefully selected species, were found in several burials. The more frequent appearance of certain plant species identified in the burials can be attributed to the fact that the plants were obtained from very similar habitats (mainly meadows, forest edge, ruderal and segetal weeds) or are associated with a specific geographical area that has been well studied in terms of botanical grave finds (for instance in Poland plants characteristic of the Lublin Upland landscape).

The use of poisonous plants in the linings may be a manifestation of both practical and magical thinking.

Poisonous plants probably served a function similar to today's disinfection and repelling or killing animals that preyed on corpses. It was believed that chthonic, or earth-bound, animals, such as reptiles, amphibians, insects and rodents, were involved in the decomposition of the bodies of the dead. These animals, for example "worms" and mice, were supposed to have the ability to be born spontaneously from dirt and decaying corpses. The decomposition of organic matter was also believed to generate miasma, the inhalation of which could cause diseases. Poisonous plants were probably countermeasures against insects and other animals suspected of being involved in the decomposition of corpses. The strong smell and drying properties of the herbs additionally were supposed to limit the extraction of miasma from the bodies. The aroma was expected to actively and physically counteract the miasma. Poisonous plants may have also been inserted into graves for anti-vampiric purposes or to deter looters.

In the Middle Ages, it was believed that the soul remained in proximity to the body until the end of the decomposition of the mortal remains. Also, the experience of purgatory was understood as being physical. In the modern period, a connection of the soul with the burial place and the ability of the dead to return from the afterlife was assumed. These beliefs are perhaps expressed in the way the corpse is prepared for the coffin, the attention paid to the comfort of the body, the dressing in warm clothing, the gifting of personal items, the provision of medicines, food, mobility aids, etc.

Assuring peace and pleasing the time after death also appears amidst the motivations for the placement of unusualattributes in graves, mentioned for younger burials in rural areas. According to ethnographic accounts, when preparing the deceased for burial, herbs were placed inside the pillow, placed on the pillowcase or under the head. The plants were meant to 'scent' for the deceased, suggesting a function perhaps similar to of other cherished objects that were put in coffins, namely to entertain the deceased person and to keep him or her in the grave. Often plants consecrated on 15th of August or during the octave of Corpus Christi which gained special power through this rite, were used for this purpose (Köhler 2017: 44). Selected plants and objects were supposed to play a role in preventing unwanted activity of the dead. Plants suitable for the deceased, according to former beliefs documented in Polish rural areas in the 19th- early 20th centuries, included oak, black henbane, thuja or wild elderberry, the remains of which have also been identified in older graves in Europe north of the Alps.


**Fig. 70.** Lavender (*Lavandula*)

Several of the species found in burials thanks to archaeological research, were considered sedative herbs in the past. Alternative ways of applying tranquillisers in the early modern period included putting herbs under the pillow or wearing wreaths. These derive from the ancient belief in the conductivity of vital power through plants. This view

is confirmed by ancient medical texts from which scientific information was drawn in the modern period. The method of placing sedative plants in bedding was also known by folk medicine (Paluch 1984: 238). In many modern burials, pillows filled with plants with sedative properties were used, such as common hop. It was thought that sleep and death were connected by an affinity which is highlighted in Renaissance art and literature works. However, it is not possible to prove that plants formely used as sedative medicines, were placed in graves in order to 'sustain' eternal sleep. The use of toxic or narcotic plants in burials could be linked to rites of passage during which they would provide assistance in the soul's journey to the afterlife. In folk culture, plants that were dangerous for healthy people, were intended for the sick. A healthy person in contact with such plants risked overstepping the bounds of the proper state, while to the sick or the deceased a change of status in the community was essential (Sztych 2013: 126).

**Fig. 71.** Chamomile (*Matricaria recutita* L.)

The use of pillows, mattresses and other bedding items in coffins is associated with the metaphor of death as a dream in awaiting awakening. In Christian sepulchral art the dead were depicted as asleep. In Gothic art, the type of stone sarcophagus with an effigy of the dead stretched out on bed or bier, with a pillow under the head, was spread throughout in Europe north of the Alps. In Renaissance sepulchral sculpture, a type of representation of figures in so-called Sansovino pose developed.These were no longer, as in Gothic art, depictions of the dead, but of people in sleep or lethargy. The philosophical idea of these portraits was presented by Stanisław Mossakowski in his analysis of the decoration of the funeral chapel in the cathedral located by the royal castle on Wawel Hill in Kraków (Sigismund's Chapel) in which members of the Jagiellonian dynasty are laid to rest. The concept alludes to 'the Neoplatonic theory of a special state of metaphysical numbness combined with sleep (*in somno raptus*) when the soul, freed from the bonds of the body (*vacatio animae*, *vacatio mentis*), reaches heavenly reality' (Mossakowski 2007: 269). The parallel between death and sleep has been explored in countless literary and artistic works. The Neoplatonic concept was also alluded by polish Renaissance poet Jan Kochanowski, in his frolic *To Dream*:

> "Dream, thou teachest man to die
> And showest the taste of the age to come,
> Put this mortal body to sleep for a while,
> And let the soul stir itself a little! [...]."[6]

This analogy also appeared in Martin Luther's song *Mit Fried und Freud ich fahr dahin*, quotations from which were placed on gravestones (Stankiewicz 2015: 103).

A duvet filled with moss and hay was found in one of the children's burials in Szczuczyn (Cat. J204). In addition, the coffin furnishings included a pillow filled with herbs and feathers, a mattress filled with hay and moss, and a wreath of natural plants. The coffin was furnished similarly to a child's cradle. The burial arrangement is reminiscent of early modern images of the reclining infant Jesus, foreshadowing his death and entombment. In the same crypt, adult persons were buried in winter clothing, of which only the linings have been preserved. Warm covering of the bodies could be also considered as a manifes-

[6] http://staropolska.pl/renesans/jan_kochanowski/fraszki/fraszki_31.html (accessed: 20.05.2019).

tation of (whether realised or not) ideas of the afterlife, and concern for the comfort of the deceased.


**Fig. 72.** Coriander (*Coriandrum sativum*)

The cushion from the coffin of a child, who died at the age of about 4-5 years (Cat. J258), and was buried in the crypt under the Przemyśl Archcathedral, contained mainly the remains of *Origanum vulgare*. These were shoots with flowers and fruit. Apart from the predominant oregano, inside the cushion there were seeds of common ragwort (*Senecio jacobaea* L.), fragments of shoots, fruit and seeds of cross gentian (*Gentiana cruciata* L.), and fruit and seeds of figwort (*Scrophpularia nodosa* L., Fig. 74). The cushion filling material contained sparse remains of grasses, inflorescences of plants of the Asteraceae family (*Asteraceae indet.*), seeds of St John's wort (*Hypericum perforatum* L.), and prickly sow-thistle (*Sonchus asper* (L.) Hill.). The sample included a single seed of Mexican marigold (*Tagetes erecta* L.) (Pińska 2012).

Most of the plants found in the child's grave cushion prefer similar habitat conditions, sunny scrub or dry meadows and calcareous, rocky or clay soils. Flowering occurs at a similar time, between June and August. The harvest could take place on late August or early September. It is likely that most the plants from the grave originated from a single harvest. Oregano, cross gentian, St John's wort and Mexican marigold are listed among the plants woven into bouquets on the feast the Assumption of Mary (Feast of Our Lady of the Herbs) on 15th of August in Roman Catholic Church (or 28th of August in Orthodox and Ruthenian Uniate Churches). The supposed time of harvest (end of August) may indicate that the cushion is filled with plants consecrated on the very day of this feast. At the same time, the herbs may have served apotropaic and hygienic functions, especially against insects and other animals.

**Fig. 73.** Fennel (*Foeniculum vulgare*)

Common oregano (*Origanum vulgare*, Fig. 65) was used in the Middle Ages as a medicinal plant, spice and source of crimson dye (Fischer and Kujawska 2016: 215). It settles sunny habitats, scrublands, hillsides and forests.

Oregano prefers dry substrate – rocky, clayey or calcareous. It blooms from June to August. The harvest of the herb for medicinal purposes occurs from June to early July. Oregano contains tannins and essential oils. The oils are initially stimulating, but prolonged inhalation of the scent can lead to intoxication (Nowiński 1980, 152). In medicine, oregano has been used as a disinfectant, expectorant and diuretic. It has choleretic, bactericidal, sedative effects and reduces the sex drive (Łuczaj 2013: 150-151). In folk medicine, poultices and baths of oregano were used for joint pain and shortness of breath. Fresh leaves were applied to burned skin. The herb was also used to treat livestock (Paluch 1989: 87). In the early modern period, it was applied to overcome melancholy, stimulate menstruation, for skin problems, wounds, scabies and coughs (Marcin of Urzędów 1595: 226-227).


**Fig. 74**. Figwort (*Scrophularia nodosa* L.)

In Antiquity, oregano was regarded as a remedy for the bites of venomous reptiles. This ability of the plant was mentioned by Aristotle, Disocurides and Pliny the Elder. Marcin of Urzędów also gives a recipe for an antidote against snakebite. It was composed of oregano leaves and flowers diluted in wine. According to this author, 'snakes are chased out of the house by oregano'. He also recommended placing the herb in the bed to avoid being attacked by reptiles while sleeping. Oregano is typified as having the power of "inflammation and desiccation". It is also characterised by being "bitter, fragrant and pungent" (Marcin of Urzędów 1595: 226-227). Szymon Syreniusz also reported that the herb drove away serpents.

It was formerly used to ward off insects. According to early modern texts by Pseudo-Albert the Great or Jakub Haur, it was said to repel ants and flies (Fischer and Kujawska 2016: 215). Historically, oregano was believed to have the power of protecting against witchcraft and malevolent beings (Nowiński 1983: 152; Galera *et al.* 2013: 7). Its anti-sorcery effects were also noted by Pseudo-Albert the Great in the 17th century and Benedykt Chmielowski in the 18th century (Fischer and Kujawska 2016: 215).

The proportions suggest that the most desirable plant in the child's burial from Przemyśl was common oregano (*Origanum vulgare* L.). The child was equipped also with a bouquet of common oregano. The next three plants in terms of the number of identified remains: the common ragwort (*Senecio jacobaea* L., Fig. 75), the cross gentian (*Gentiana cruciata* L.), and the figwort (*Scrophpularia nodosa* L.), share similarities in characteristics that also suggest their intentional selection. They all have a bitter taste and an intense, unpleasant odour. Moreover, they are poisonous to humans, livestock and pests.

Although the ragwort (*Senecio jacobaea* L.) has been used in traditional medicine, it is toxic to the liver, leads to neurological damage and can cause death.

Cross gentian (*Gentiana cruciata* L.) was formerly considered poisonous. Gentian, especially in the territory of Poland, was believed to have the power to protect against demons (Pińska *et al.* 2015: 303; Fischer and Kujawska 2016: 152). It was used in medicine for wounds healing (Fischer and Kujawska 2016: 152). Gentian was also mentioned as one of the ingredients of theriac (*Theriaca*

*andromachi*) which was universal antidote to poisons, including reptile venom (Griffin 2004: 317). The roots were used to drive insects out of houses (Fischer and Kujawska 2016: 152).


**Fig. 75**. Ragwort (*Senecio Jacobaea*)

Figwort (*Scrophpularia nodosa* L., Fig. 74) is a poisonous plant. It emits an unpleasant odour. It was used to treat uterine pain, rabies and also externally for ulcers and burns. According to polish writer Jakub Haur, figwort was also said to have a protective potential against witchcraft (Fischer and Kujawska 2016: 313-314).

The presence of Mexican marigold (*Tagetes erecta* L., Fig. 76) is noteworthy. The marigold was brought to Europe from Central America or Northern areas of South America in the second half of the 16th century at the latest. It emits an unpleasant, very intense odour. In Europe, it was cultivated as an ornamental plant. In their place of origin, marigolds flower on All Saints' Day. For this reason, they are called in Spanish *flor de muero* – flower of death (Zieliński 2005: 41). The scent of the marigold plant was believed to destroy pests (Pińska *et al.* 2015: 303).

Poisonous plants also include common viper's bugloss (*Echium vulgare*) which was found in a sample from the pillow of Bishop Wykowski who was buried in the same crypt under the Archcathedral in Przemyśl (Cat. J259). The fresh leaves of this plant were used to drive away rodents (Nowiński 1983: 127-128). The blue flowers with stamens resembling a viper's tongue were considered an antidote after snake and insect bites.


**Fig. 76.** Aztec marigold (*Tagetes erecta* L.)

The filling of the cushion from the grave of Zofia Lubomirska (Cat. J170) from the Church of the Finding of the Holy Cross and St Andrew the Apostle in Końskowola, who died in 1675, consisted mainly of ripe fruit and whole shoots with fruit of oregano (*Origanum vulgare* L.).

The cushion contained the remains of the inflorescences of plants of the *Compositae* family (*Asteraceae*), grasses, ragwort (*Senecio jacobaea* L.), and yarrow (*Achillea millefolium*). Remains of plants found in dry and widespread thickets, on calcareous substrates were also identified: fruit of alpine sea holly (*Eryngium cfr alpinum*) and flowers and fruit of St John's wort (*Hypericum perforatum*). The material included fragments of cultivated plants – fruit of common flax (*Linum usitatisinum*) and flowers of oats (*Avena sativa*, Fig. 64). In addition, field camomile, a weed of cereal crops and flax, inhabiting calcium-poor ruderal areas (*Centauretalia cyanii communities*), was identified. There were remains of hop clover (*Medicago lupulina*) which is a weed of crops, especially winter cereals. It grows in fertile ruderal areas, baulks, grasslands, thickets and sandy places.

Dioecious sedge, characteristic of bogs (*Carex dioica*), was also recognised. Warm and dry, poor non-calcareous sites are preferred by field clover (*Trifolium arvense*), a fragment of whose inflorescence, flower and ripening fruit were discovered in the grave. Among the plants, there were also species that usually inhabit forest edges and poor soils – hawkweed oxtongue (*Picris hieracioides*), common centaury (*Centaurium erythraea*) and common sorrel (*Rumex acetosa*) (Pińska *et al.* 2015: 311-312). The varied composition indicates a deliberatedly chosen mixture of plants collected from multiple sites. The plants may have been collected in late summer or early autumn. It is also likely that they came from bouquets composed for the Feast of Our Lady of the Herbs.

Oregano was also recognised in a cushion from the grave of a woman in Holy Trinity Church in Strzelno (Cat. J7). It contained mainly fruit of curly dock (*Rumex crispus* L.). In second place in terms of abundance were the leaves of the common bracken (*Pteridium aquilinum* (L.) Kuhn). The third plant was common oregano (*Origanum vulgare* L.), fruit of which was observed in the sample. In addition, the material contained single fruit of common chicory (*Cichorium intybus* L.), caraway (*Carum carvi* L.), a plant from the umbelliferae (*Apiaceae indet*.) and flat sedge (*Blysmus compressus*). The numerous remains of the lesser house fly (*Fannia canichularis*) indicate a time when the burial took place, i.e., after mid-August or early autumn at the latest. According to the authors of the botanical analysis, it is therefore highly probable that the plants from the cushion were part of a bouquet sacred on Our Lady of the Herbs Day (Święta-Musznicka *et al.* 2021: 206-209).

In the coffin of a young man (Cat. J249) buried in the crypt under the floor of the Jasna Góra church in Częstochowa (Galera *et al.* 2013: Plate XIV), dating to the 17th century, a significant concentration of plants was found under the head of the deceased. The filling of the bottom of the coffin consisted of plants, among which the flower/fruit of mullein (*Verbascum* sp.), the inflorescence of yarrow (*Achillea millefolium* L.), the flower and fruit of the bladder campion (*Silene vulgaris* (Moench) Garcke), the remains of thyme (*Thymus sp*.) and the inflorescence of common tansy (*Tanacetum vulgare* L., Fig. 77) were recognised. The material included inflorescence fragments and fruit of common oregano (*Origanum vulgare* L.).

*Origanum vulgare* was also identified in the bouquets from the coffin of Hans Andreas Nordborg (Cat. C2) buried in St Olaf Cathedral in Helsingør (Karg 2001: 134--135). Oregano was among the plants used to embalm the body of Wilhelm van Oranje, buried in 1584 in Breda Cathedral (Hadjouis *et al.* 2009: 19). It has also been identified in the burials of Anne de Laval (Cat. F5; Ruas 1992), of Philippe René de la Motte Ango (Cat. F14) buried in a church in Flers, perhaps of Thomas Craven (Cat. F13) in Val de Marne (*Origanum vulgare* or *Origanum majorana applied*) (Hadjouis *et al.* 2009: 13), Wilhelm Heinrich von Nassau-Saarbrücken and Ludwig von Nassau in the Nassau Castle Church (Cat. H130, H131; Rosinski 2007: 143), and in the crypts under St Francis Church in Kraków (Cat. J24, J25, J29, J34; Pińska, Drążkowska 2020: 81-130).

Hyssop (*Hyssopus officinalis* L.) was found in the burial of Bishop Winstrup in Lund (Cat. N11; Lagerås 2016a, 2016b: 17, 19), and in the coffins of the von Stockhausen family (Cat. H105), buried in the crypt in Trendelburg (Rosinski 2007: 143). Hyssop (*Hyssopus officinalis* L.) mainly comprised the cushion from the coffin of Bishop Walenty Wężyk (Cat. J260) buried in the Przemyśl Archcathedral. The remains of other plants compared to the hyssop occurred in small numbers. These include weeds and one species of grass, the creeping bentgrass (*Agrostis stolonifera* L.). All of these belong to species rarely or nev-

er used in folk medicine. The cushion was filled with the flowered stems of hyssop with small admixtures of weeds, of which only prickly sow-thistle (*Sonchus asper* (L.) Hill.) and shepherd's purse (*Capsella bursa-pastoris* (L.) Medik.) can be considered medicinal plants (Drążkowska 2015: 303).


**Fig. 77.** Tansy (*Tanacetum vulgare* L.)

Among the oldest European magic plants is mugwort (*Artemisia*, Fig. 78). On Polish territory, its meaning and uses, recorded by ancient naturalists, were probably formed at the end of the Middle Ages or at the beginning of the modern period. Marcin of Urzędów explained the etymology of the Latin name which comes from the goddess Artemis (Roman Diana). The virgin goddess was the protector of women and watched over childbirth. According to the author, she was supposed to teach women the rituals held on the eve of St John's Day on 23rd of June – bonfires burning, dancing and singing. During Midsummer night, girls would girdle themselves with mugwort which is also confirmed by poet's Jan Kochanowski description of the rituals in *Song of the Midsummer Sabbath*[7] (Kapeluś 1989: 57). The girding of the hips was associated both with the sphere of female fertility and protection against spinal pain when working in the fields (Fischer and Kujawska 2016: 109). However, Marcin of Urzędów in his *Polish Herbarium* condemned these customs, as serving to worship the devil.

Mugwort, as its name indicated, was supposed to have a particularly beneficial effect on women. It was used to treat diseases of the female genital organs, to induce menstruation and stillbirth. Mugwort was said to facilitate conception, pregnancy and childbirth. Hanging the plant over entrances and windows protected houses from witchcraft (Marcin of Urzędów 1595: 31-32). The apotropaic role and customs of decorating homes with mugwort to protect against evil were recorded by many authors in the past (Fischer and Kujawska 2016, 107).

Mugwort was described in the *Polish Herbarium* as a warming, drying and moisture-diluting plant. Marcin of Urzędów recorded ways of treating kidney stones, scanty urine, swollen and tired legs with mugwort. Diarrhoea was said to be relieved by sitting on mugwort shoots warmed in an oven and enclosed in a bag. Pliny, quoted by Marcin of Urzędów, attributed apotropaic properties to mugwort. Carrying mugwort with oneself was said to protect against charms and venomous animals (Marcin of Urzędów 1595: 33-34). Leonard Fuchs reports that mugwort kills parasitic worms in the gastrointestinal tract and also combats all kinds of poisons (Fuchs 2016: 3).

Inflorescences and a leaf of common mugwort (*Artemisia vulgaris*, Fig. 78) have been identified on vestments from the tomb of King Casimir IV Jagiellon of Poland (Cat. J18). The ruler was buried in the Chapel of the Holy Cross at Wawel Castle in Kraków, south of Poland. In 2010, the shroud, in which he was laid to rest, was re-examined. Remains of mugwort which served as a lining, were preserved on the burial garment. It is possible that

[7] "When all were seated on the turf, up jumped twelve maids, their waistbands girth with magic mugwort", http://www.staropolska.pl/renesans/jan_kochanowski/piesn_o_sobotce.html (accessed: 20.12.2018).

Casimir Jagiellon's coffin originally also contained other species of herbs. The king died on 7 June 1492 in Grodno, today in western Belarus, about 700 kilometres from his final burial site. The corpse, probably covered with preservative herbs, stayed in a closed coffin during the month-long transport of the body to Kraków (Hryszko 2010: 62).

**Fig. 78.** Common mugwort (*Artemisia vulgaris*)

Mugwort remains have also been found in the burial of Cimburga van Baden in Breda (Cat. G6), in linings from the burials of Dukes from the Mazovian Piast line in St John the Baptist Archcathedral in Warsaw (Cat. J182, J183; Pela 1997: 24), in the coffin lining of a man buried in the chancel of the same cathedral in the 17th/18th century (Cat. J185), in the burial of a woman in Lublin Cathedral (Cat. J155; Pińska *et al.* 2015: 310), in pillows in the crypt of St Jack Church in Słupsk (Cat. J269, J270, Rawa-Szubert *et al.* 1981: 76), in the body of Thomas Craven buried in Val de Marne (Cat. F13), in the burial of Anne d'Alègre in Ville de Laval (Cat. F5), in a cushion from the coffin of a child buried in Byszewo (Cat. J2), in the lining of the coffin of Duke Ludwig von Nassau in the castle crypt at Nassau (Cat. H131), in the crypts under the church of St Francis in Kraków (Cat. J32, J33, J40, J43, J44, J45).

The coffin of Bishop Peder Winstrup of Lund (Cat. N11) was filled mainly with two species of mugwort – wormwood (*Artemisia absinthium* L., Fig. 79) and southernwood (*Artemisia abrotanum* L., Fig. 44). Wormwood has also been discovered in burials at Trendelburg (Cat. H93) and in a pillow from the coffin of Ludwig von Nassau (Cat. H131).

**Fig. 79.** Wormwood (*Artemisia absinthium* L.)

Wormwood (*Artemisia absinthium* L.) is a perennial herb with a characteristic strong odour (Fig. 79). It is poisonous, containing mainly thujone and the bitter glycoside – absinthin. It has been described since Antiquity by physicians and botanists. According to Pliny the Elder, wormwood put under the pillow brought sleep. It was believed to ward off insects. In the *Polish Herbarium* of Marcin of Urzędów there is information about wormwood's drying and warming power. When digested, wormwood was supposed to cause initially laxation and then constipation. According to this author, it should be used for the

disorders of digestive system, but also to remove parasites (Marcin of Urzędów 1595: 174).

Shoots and inflorescences of common mugwort were found in the coffin of an adult woman buried in the crypt of the Jasna Góra church in Częstochowa (Cat. 225). Under the head of the deceased was a silver crown groschen of Sigismund III Vasa with the date 1611. The filling of the bottom of the coffin further consisted of inflorescences of common chamomile (*Chamomilla recutita* L.), cornflower blossoms (*Centaurea* sp.), shoot and fruit of catnip (*Nepeta* sp.), fruit and seeds of common toadflax (*Linaria vulgaris* L.) (Galera *et al.* 2013).

Chamomile (*Chamomilla recutita* L.) inhabits cultivated fields, baulks and ruderal areas (Fig. 71). It prefers soils rich in calcium carbonate. Chamomile is also cultivated. It flowers from May to autumn. The medicinal raw material is the chamomile flower heads which contain the essential oil azulene. In the past, it was believed that the herb should be harvested before St John's Eve, as it could be contaminated by witches during their sabbath (Paluch 1989: 112-113). There are many species of chamomile in Poland, but in the past, they were not distinguished, apart from the "dog's chamomile" mentioned by Szymon Syreniusz.

Chamomile contains resins, organic acids, glycosides, vitamins, carotenoids, mineral salts, resinous compounds and mucilage (Krześniak 1986: 90). It has a diaphoretic, antipyretic, analgesic and soothing effect on inflammation of the skin and mucous membranes. It was probably considered as a medicinal plant by ancient botanists and physicians, such as Hippocrates, Asclepiades and Dioscorides (Paluch 1989: 112-113). Chamomile reached Central Europe before the end of the 15th century (Galera *et al.* 2013: 9). Marcin of Urzędów gives the common Polish name *maruna* which was supposedly derived from the words mother or womb (Polish *matka/macica*; Marcin of Urzędów 1595: 205). Chamomile was used for inflammations, ulcers, dysentery and melancholy. It was believed to flush out phlegm (Marcin of Urzędów 1595: 206). Chamomile had power to protect against spells.

It was allegedly used to preserve food and wash rotten meat. Chamomile was considered a cure-all in traditional folk medicine. It was used for treating diseases related to the eyes. It was also believed to protect against witchcraft (Nowiński 1983: 188). Its decoction served to wash and apply to wounds, bruises and ulcers. Chamomile was administered for digestive disorders such as indigestion, stomach aches, flatulence and diarrhoea. It was used to treat throat infections, colds, fevers, coughs, headaches and earaches, to rinse teeth and gums, and was inhaled in the case of a cold or sore throat. Chamomile was also a remedy for women's illnesses (Paluch 1984: 48-49). However, it gained its special healing properties after being consecrated on the day of Our Lady of the Herbs (Fischer and Kujawska 2016: 289). Chamomile was also sacred during the octave of Corpus Christi. Due to appearance of its flowers, it was symbolically associated with life, the sun and an egg (Paluch 1984: 49). The consecrated herb was placed in thatch and hung on the walls of houses. It also fulfilled an important role in wedding symbolism. When placed in bedding, it fought off fleas (Fischer and Kujawska 2016: 290-291).

Chamomile has been found in the coffins of the Mazovian Piasts in St John's Archcathedral in Warsaw (Cat. J182, J183; Pela, 1997: 24) and also in coffins in Trendelburg (Cat. H94; Rosinski 2007: 144), in Częstochowa (Cat. J252, Galera *et al.* 2013: Plate XIX), in the filling of a pillow or coffin in child burials in the Church of Our Saviour in Copenhagen (Cat. C18, C19; Moltsen 2000: 3, 4).

Among the medicinal plants discovered in burials was also thyme (*Thymus*). In Northern Europe, thyme was cultivated already in the early Middle Ages. The old Polish name of the plant is *macierz duszka* and is derived from the words mother and soul. The etymology of the name points to its medicinal use (Waniakowa 2012: 38). Thyme was considered to have a beneficial effect on pregnant women and infants. It was also used for uterine ailments and in the postpartum care (Fischer 1921: 423-424).

In the burials were recognised common thyme (*Thymus vulgaris* L., Fig. 69) and creeping thyme (*Thymus serpyllum* L., Fig. 68). Marcin of Urzędów records that thyme is similar to marjoram, but he only had the opportunity to see it once in Poland. Thyme was described in the *Polish Herbarium* as a hot and dry plant that dilutes moisture and expels phlegm from the body by inducing diarrhoea and

expelling 'frothy blood'. Because of these properties, it was used to treat diseases believed to be caused by phlegm retention. Thus, thyme was said to cure coughs, drive out worms, accelerate menstruation and cause the placenta to expel more quickly. It was also used externally for eye and skin ailments and throat wounds. It was said to alleviate mental suffering (Marcin of Urzędów 1595: 299-300).

In traditional folk medicine, thyme decoctions were drunk to treat coughs and baths were used to cure rickets in children. Thyme flowers were applied for fevers, headaches, stomach aches and colic. Thyme was also said to aid sleep. Aching joints were rubbed with it and the decoction was used to wash wounds. It was believed to ease the despair of a dying person (Fischer and Kujawska 2016: 421-424). Thyme decoction was used for bathing and washing dishes so that the milk stored in them would not spoil. Consecrated thyme protected the house from natural disasters and had the power to ward off evil. It also found use in wedding and funeral rites (Fischer and Kujawska 2016: 425-426).

Common thyme (*Thymus vulgaris*, Fig. 69) was part of the mixture of plants used to embalm the body of Maria van Loon buried in Breda (Cat. G7). Thyme was found in the linings of the Mazovian Dukes (Cat. J182, J183) and in the tomb of an unknown man in Warsaw Cathedral (Cat. J184), in an abdominal sample (Pińska *et al.* 2015: 308- -309), in the coffin of a man who died at about 30 years of age buried in the crypts of the Jasna Góra church in Częstochowa (Cat. J249), in the burial of Anne d'Alègre in the Vieux Château de Laval (Cat. F5), in the grave of Wilhelm Heinrich von Nassau-Saarbrücken in the Nassau castle church (Cat. H130), in the cushion from the grave of Silvius I Nimrod from Oleśnica, along with viper's bugloss and rosemary (Dolnośląski Wojewódzki Konserwator Zabytków). The body of Bishop Tadeusz Kierski laid to rest in the crypt in Przemyśl (Cat. J262) was embalmed with thyme.

Lavender is also among the plants frequently encountered in archaeological materials. Broad-leaved lavender (*Lavandula officinalis*, Fig. 70) in Europe north of the Alps is an exclusively cultivated plant. The lavender flower contains essential oils, tannins and natural dyes. Lavender has antiseptic, sedative and antispasmodic effects. Lavender oil exhibits antibacterial properties (Kuźnicka and Dziak 1984: 96). Historically, the scent of lavender was believed to counteract fainting. Lavender which was regarded as a hot and dry *vegetabilium* by Renaissance naturalists, exhibited a softening action. The oil was said to have a beneficial effect on people suffering from epilepsy and paralysis (Marcin of Urzędów 1595: 184).

Lavender has been discovered in coffins in Trendelburg (Cat. H94), in the pillows from the burials of the children of Christian IV in Roskilde Cathedral (Cat. C20, C21), in the coffin of Bishop Winstrup in Lund Cathedral (Cat. N11), and in the crypts under St Francis' Church in Kraków (Cat. J27, J29, J36). It was also used to embalm the corpse of Bishop Walenty Wężyk buried in the Archcathedral in Przemyśl (Cat. J260).

In Bishop Wężyk's burial common basil (*Ocimum basilicum* L.) was discovered. In Poland, basil is only found in a cultivated form. The plant blooms from late June to mid-September. Basil shoots contain essential oil, the amount of which depends on the growing conditions.

In the modern period, according to knowledge drawn from ancient natural history texts, basil was attributed with negative effects on health, bringing madness and provoking lethargy. It was believed that basil could contribute to the proliferation of insects and scorpions. Marcin of Urzędów believed that scorpions could even be born from the plant. In the 16th century, the Parisian physician Mizaldus recorded that scorpion hatched in the head of an Italian who inhaled the scent of basil (Nowiński 1983: 150-151; Kawałko 1986: 192). Basil gained greater popularity in Western Europe in the 17th century. In the 18th century it did not appear in Polish medical compendia and culinary textbooks, although basil-based waters, oils and lotions were available in Central Europe (Kawałko 1986: 192).

The remains of a black henbane (*Hyoscyamus niger*) were discovered in coffin located in the southern part of the crypt under the floor of the Jasna Góra Church in Częstochowa (Cat. J251). The burial dates to the 17th century. As a result of the body being covered with a corrosive substance (probably lime) before burial, most of the skeleton decomposed. Based on the available remains and items of clothing, the sex of the deceased was determined to be female. It was estimated that the woman died at the age of approximately 25-30 years (Kryst 2013: 147-148).

Her body rested in a coffin on a thick layer of plants with which it was also covered to chest height (Młodkowska-Przepiórkowska and Przepiórkowski 2013: 60). Among the plant remains, the calyx and seeds of black henbane (*Hysoscyamus niger* L.) and fragments of broken stems of garden dill (*Anethum graveolens* L.) were identified (Galera *et al.* 2013: Plate XI).

Black henbane seeds were also discovered as one of the plants used to fill the bottom of the coffin of Danish Bishop Peder Winstrup (Cat. N11), a leader of the Lutheran Church, buried in the crypt beneath Lund Cathedral in Sweden. The bishop died in December 1697, but his funeral took place more than a month later. The bottom of the coffin and the rest of the grave linens were filled with the remains of numerous plant species. The lining contained mainly wormwood (*Artemisia absinthium*) and southernwood (*Artemisia abrotanum*), also the remains of oats (*Avena sativa*, Fig. 64), rye (*Secale cereale*) (including a whole ear), barley (*Hordeum vulgare*), several hazelnut shells (*Corylus avellana*), hemp seed (*Cannabis sativa*), flax seed (*Linum usitatissimum*) and carrot seed (*Daucus carota*) (Lagerås 2016a, 2016b: 24). Henbane remains have also been observed in burials beneath St Francis Church in Kraków (Cat. J29, J38), in coffin of Silvius I Nimrod von Württemberg-Oels buried in Oleśnica (Dolnośląski Wojewódzki Konserwator Zabytków) and the crypts of Byszewo Church (Cat. J3).

Black henbane is a biennial or annual spring plant. It belongs to the solanaceous family (*Solanaceae* Juss.). It is found in Europe, Asia, North Africa, North America and Australia. Black henbane is an archaeophyte, having arrived in Central Europe from Central Asia. Formerly widely cultivated, now it is found in a feral form. It prefers ruderal areas such as thickets, roadsides, rubbish dumps, and less frequently gardens and orchards (Czikow and Łaptiew 1983: 198).

Black henbane has a thick taproot. The straight stems, growing to a height of about 20-80 centimetres, are covered with numerous sticky hairs and emit an unpleasant odour. It develops large, ovate, light green leaves throughout its height. Henbane blooms from May to August. The flower petals are yellow, covered with prominent, purple-tinged veining. After pollination, the flowers develop into fruit-bags. The fruit contain grey-brown, flat seeds. Because of the appearance of the ripe, dark purple berries, it was called pig's bean by the ancient Greeks (Greek *hyos* – 'pig' and *kyamos* – 'bean'; Quattrocchi 2016: 2036).

The plant is highly poisonous, with all organs containing tropane alkaloids: hyoscyamine, atropine and scopolamine (hyoscine). These substances affect the central nervous system. They induce initial agitation combined with impaired consciousness which then turns into increased drowsiness. At this stage after absorption of the alkaloids, hallucinations occur. Severe poisoning leads to coma, cardiorespiratory failure and death (Burda 2009: 583-584). Because of the properties of scopolamine and atropine to block muscarinic acetylcholine receptors, synthetic equivalents of these substances are used today when preparing patients for surgery (Mann 1996: 100). In addition, atropine induces a weak local anaesthetic. This was known in ancient times and was applied to people undergoing surgery or suffering from pain. Alongside morphine, it was used as a sedative during surgery (*Atropine*, n.d.).

Despite its strong toxicity, black henbane is one of the oldest medicinal plants. It was probably mentioned in an Egyptian medical papyrus dating to around 1550 BC called the *Ebbers Papyrus* (Daunay and Janick 2008: 10). The effects of henbane were described in Antiquity by botanists and physicians, including Dioscorides and Pliny the Elder. Black henbane remains have been discovered in Europe at Bronze Age and Iron Age sites (Karg *et al.* 2014: 52).

Thanks to monastery gardening, the henbane has spread over a large area of Europe. It prefers moist soils rich in nitrogen and phosphate, so it quickly adapted to the vicinity of human settlements. It is uncertain whether the henbane remains found at some archaeological sites are from cultivated or feral plants (Åsen 2009: 227-238).

In the Middle Ages, it was classified by St Hildegard as a dehydrating, drying and harmful herb. Except medicine, black henbane had many economic uses as pest control (mainly rodents and insects) and to fish catching. Black henbane juice was rubbed on household equipment against cockroaches and bedbugs (Fischer and Kujawska 2016: 225). It was used to dye wool and was a seasoning for wort in beer production.

As evidenced by archaeological finds from Turkey, smoke from burning or steam from boiling water with black henbane seeds was inhaled for medicinal purposes (Fenwick and Omura 2015: 912). The fumes contained alkaloids that relieved toothache, earache and eye pain. Such inhalations were known throughout Eurasia and were first described by the Roman physician Scribonius Largus in 47 AD. In Polish lands, in the rural areas, inhalations of smoke from burnt or steam from boiled henbane seeds were also used for toothache. The treatment was believed to remove so-called tooth worms.

It is likely that since ancient times, henbane has been associated with magic and death. One of the Polish folk names for the plant is *trupie ziele* ('deathwort'), while in Switzerland it was called 'graveyard plant' (Galera *et al.* 2013: 189). It was used to produce poisons and witch's ointment. When mixed with fat, the intoxicating substances could be absorbed through the skin. The witch's ointment was supposed to be used to coat the handle of a broomstick in order to fly on it. It is believed that the sensation of floating in the air was caused by the psychedelic effect of the plant (Mann 1996: 67).

Henbane in Polish lands was known under the name *bieluń* (*bielon*) which refers to an older term used for this plant. Since the 15th century, the term *lulek* has also been used, but it originally included various plant species (Arabas 1989: 134).

Polish Renaissance herbaria described the benefits of black henbane which was used in cases of pain and inflammation of various organs. In addition to this, it was recommended to calm or sedate a person suffering from pain, with the objection that it sometimes 'makes one mad' (Marcin of Urzędów 1595: 169-170). This important property of henbane was emphasised by the name *szalej* ('mad herb' in Polish) which became popular in the first half of the 16th century (Arabas 1989: 134). In herbaria, black henbane was classified as a desiccating and cooling raw material.

The goal of the people preparing the bodies for burials may have been to dry out the corpse fast. By desiccating or quick skeletonization of the body, the unpleasant consequences of decomposition were avoided. This reduced exposure to the source of infection, i.e., the rotting remains. The use of lime and herbs, was supposed to speed up decomposition or stop it by drying, depending on the contradictory interpretations of this practice circulating in Europe. The lime has been proven to reduce odour shortly after the burial (Schotsmans *et al.* 2015: 465). The plants used in the Częstochowa grave may have supported the effect of lime. Covering the corpse with lime and poisonous, fear-inducing herbs also provided protection against grave looters.

Black henbane may also have had another hygienic function – to exterminate and repel animals. In early modern burials, the plants believed to have had the property of repelling or killing pests: reptiles, insects and rodents, are often found. As a former mediation plant, it may have been important in the transitional phase of rituals for protective concerns. Perhaps the henbane was meant to provide protection at the time of transition and to facilitate the soul's journey into the afterlife.

Dill (*Anethum graveolens*), discovered in burials in Częstochowa, has been found in archaeological sites in Poland dating from the early Middle Ages (Fig. 66). Saint Hildegard of Bingen, in her work *Physica*, mentions the harmfulness of dill, which when consumed raw was said to bring on sadness. According to her, it has a harmful effect on humans because it contains a considerable amount of moisture from the earth and also a little fatness (Hildegard of Bingen 2014: 103). Dill was categorised as a warm and drying herb by early modern medics. The medical literature stated that dill draws out moisture through the skin pores. It was also said to exhibit a soporific effect (Rostafiński 2012: 35).

Garden dill (*Anethum graveolens*) was also discovered in the burial of another over 50-year-old woman (Cat. J247) in the Jasna Góra church in Częstochowa (Galera *et al.* 2013). It was also found in the coffin of Lund Bishop Peder Winstrup (Cat. N11) from the 17th century (Lagerås 2016a, 2016b: 17-20). In addition, it has been discovered in the crypts beneath the church of St Francis in Kraków (Cat. J29, J31) and in the filling of the pillows of the deceased Visitation Sisters in the Church of the Assumption of the Blessed Virgin Mary in Lublin from the 2nd half of the 19th century. A woman buried in May (Cat. J155) rested on a pillow containing dill (*Anethum graveolens*), hyssop

(*Hyssopus officinalis*), red-root amaranth (*Amaranthus retroflexus*), white mustard (Cf. *Sinapis alba*), and mugwort (*Artemisia* sp.) (Pińska *et al.* 2015: 315). In another of the burials from the same crypt (Cat. J156), deposited in December, the cushion contained dill (*Anethum graveolens*) and unmarked remains of plants from the *Compositae* (*Asteraceae* indet.) and umbelliferous (*Apiaceae* indet.) families. The woman was resting on a mattress of pine shavings (*Pinus sylvestris*) and unmarked herbs (Pińska *et al.* 2015: 315).

The other plants in Bishop Peder's coffin belong to edible cultivated species. These include cereals, nuts, hemp seed (*Cannabis sativa*), flax seed (*Linum usitatissimum*) and carrot seed (*Daucus carota*). As the representation of some species is significantly lower, they could be considered, for example, as an accidental inclusion or the result of animal activity. The bishop's funeral took place in winter, which means that the plants found in his coffin must have been harvested much earlier. They belong to economically and food-relevant plants stored for various purposes. It is possible that due to the difficult access to plants at the time when the funeral took place, all available supplies, including perhaps even waste, were used as coffin filling.

Plants that are less commonly discovered in graves, but characteristic of the local Polish medicinal tradition, are, for example, the shepherd's purse, bishopwort, devil's-bit, mullein, elderberry, St John's wort, yarrow or common toadflax.

The common shepherd's purse (*Capsella bursa-pastoris*) has peculiar heart-shaped fruit that are set on long stalks growing from the stem (Fig. 30). It is a popular weed growing in nitrogen-rich soils. It inhabits scrub, fallow land, pastures, gardens, and dried bogs. It also occurs as a weed of crops. The shepherd's purse blooms from May until late autumn (Bełdowska and Guzowska 1987: 196-198). Due to the association of the silique shape with the heart, it was used in folk medicine for disorders of this organ and other ailments causing blood loss – bleeding, ulcers, injuries, heavy menstruation, discharge, diarrhoea (Paluch 1984: 165). Marcin of Urzędów noted in his *Herbarium* that the shepherd's purse had a cold-relieving and drying effect. He gave shepherd's purse-based recipes to help treat dysentery, diarrhoea, haemorrhoids, discharge, heavy menstruation, swelling, ulcers and inflammation (Marcin of Urzędów 1595: 64).

The presence of the shepherd's purse was identified in a pillow from the coffin of Bishop Walenty Wężyk in the crypt of the Archcathedral in Przemyśl (Cat. J260), in the coffins of Dukes Janusz III and Stanisław buried in St John's Archcathedral in Warsaw (Cat. J182, J183), and in the crypts under St Francis' Church in Kraków (Cat. J30, J38).

The last of the plants mentioned in the report on the examination of the coffin of Duke Janusz III in Warsaw Archcathedral was identified as being of genus betony (*Stachys*). The bishopwort, otherwise known as the purple betony (*Stachys officinalis*), is one of the most important medicinal plants included in the genus. It grows in sunny locations. It prefers meadows, scrubland or woodland (Fig. 80). It is also cultivated for decorative purposes. According to Marcin of Urzędów, bishopwort is hot and drying (Marcin of Urzędów: 1595: 52). He recommends the use of bishopwort for diseases of the uterus, kidneys, liver, bladder, spitting up blood, dryness, vomiting, fevers, swelling or jaundice. The bishopwort was supposed to neutralise the effects of poisons. In the event of a snakebite, a decoction of the plant was to be drunk or the leaves applied to the wound (Marcin of Urzędów 1595: 52-53). The same property of bishopwort is reported by Polish naturalist Jan Krzysztof Kluk. Tannins were extracted from fresh bishopwort leaves. In ancient herbaria, it was depicted as a plant that protected against spells (Fischer and Kujawska 2016: 106). Bishopwort, together with saxifrage sap and pine resin, was part of the medicinal patches called 'grace of God' in the 16$^{th}$ century (Badura 2011: 220).

Among the ancient therapeutic plants is also devil's-bit (*Succisa pratensis*, Fig. 81). Marcin of Urzędów cites the etymology of the plant's name given by Fuchs which comes from the appearance of the roots. They were thought to be bitten by the devil who wishes to deprive people of the possibility of using an effective medicine (Marcin of Urzędów 1595: 296). The plant bore a similar name referring to the bite of the devil in Latin and many other European languages. Devil's-bit were said to be bitter, warm and drying. It was used to treat uterine ailments and ulcers. It was considered to be a sleeping and charm-fighting agent (Fischer and Kujawska 2016: 362).


**Fig. 80.** Betony (*Stachys officinalis*)

**Fig. 81.** Devil's-bit (*Succisa pratensis*)

Another of the medicinal plants is mullein (*Verbascum*). In the past, herbalists emphasised the connection between mullein and magic. Hieronim Spiczyński (1542) recommended using mullein spiced vodka against charms. The effects of mullein were rejuvenation and combat fatigue. It was supposed to be burnt during the rituals of St John's Eve in order to drive away witches and was consecrated on Our Lady of the Herbs Day. The blessed shoots were stuck into thatched roofs and used to smoke the cattle. It also helped to drive away mice and rats. In folk medicine, mullein was used for respiratory ailments, wounds, swellings, colds and rheumatism treatment (Fischer and Kujawska 2016: 138-141).

According to folk beliefs, elderberry (*Sambucus nigra* L.) was the seat of an evil spirit (Fig. 82). In Poland, it was an old man with a grey beard. The Germans saw the elderberry bush as the seat of the goddess Holle (Holda) who was the protector of agriculture and female activities. Judas was said to have hanged himself on the elderberry bush. Damaging or cutting the bush entailed misfortune and could lead to the release of diseases procured under it. These beliefs suggest an ancient ceremonial role of the plant, probably modified by the influence of Christianity.

In folk culture it fulfilled an important protective function. Elderberry garlands sacrificed on Corpus Christi were burned to protect against lightning, animals were fumigated with them, and twigs were plugged into thatch roofs for protection against spells. The water from the deceased's bath was poured under the elderberry bush (Fischer and Kujawska 2016: 80-81). It was also used against mice and cereal parasites.

Marcin of Urzędów in *Polish Herbarium* combines elderberry and dwarf elderberry wildflower in a single entry. In his opinion, these plants have an astringent effect, by being hot and dry by nature. Swelling, gout, wounds and eye inflammations can be treated with them. In the case of a bite from a rabid dog, elder leaves macerated with wheat flour were applied. Eaten raw, the leaves, fruit and twigs were supposed to draw phlegm from the body (Marcin of Urzędów 1595: 87-88). A decoction of the fruit was used as an analgesic (Badura 2011: 220). Elderberry branches were used as a measure for a coffin.


**Fig. 82.** Elderberry (*Sambucus nigra* L.)

Dwarf elder was applied to treat rheumatism and dryness. It was one of the plants sacred on Our Lady of the Herbs Day. In the modern period, it was regarded as a remedy against witchcraft. According to Szymon Syreniusz, fumigating a house with dwarf elder drives out snakes (Fischer and Kujawska 2016: 84). The remains of dwarf elder were discovered in the burial of Bishop Peder Winstrup in Lund (Cat. N11; Lagerås, 2016a, 2016b: 24). However, the plant in its wild state is not found in this part of Europe and may have belonged to cultivated medicinal resources.

St John's wort (*Hypericum perforatum* L.), two seeds of which were discovered in the pillow of a child buried in the Przemyśl Archcathedral, also occurred in the pillow of Bishop Wykowski's coffin from the same crypt (Cat. J258). St John's wort grows in dry, sandy, ruderal areas. It blooms from June to August. St John's wort's common name refers to the belief that it blooms around 24 June, at St John's Day. Its leaves are covered with spots which are reservoirs of essential oils, causing a release of strong fragrance. The petals when crushed, exude a red juice (Kuźnicka and Dziak 1984: 59). St John's wort is a very old medicinal plant, its remains having been discovered during archaeological research in Biskupin in Poland, at the Bronze Age settlement of Lusatian culture (Paluch 1984: 71). The medicinal raw material are the flowered stems of the plant. In some regions of Poland, they were harvested on St John's Eve. It was one of the herbs blessed during the octave of Corpus Christi and the Feast of Our Lady of the Herbs. Its former ceremonial role is evidenced by later legends explaining the formation of spots on the leaves by an attack from the devil (Kuźnicka and Dziak 1984: 61).

St John's wort herb contains hypericin, a photosensitising substance. It was used to treat wounds, skin problems, and diseases of the digestive and nervous systems (Kuźnicka and Dziak 1984: 33-35; Paluch 1984: 34; Fijałkowski and Chojnacka-Fijałkowska 2009: 176-178). It was considered an apotropaic plant, being hung in houses, utility rooms and also carried around as an amulet. It was placed under the pillow of the woman giving birth and the newborn baby (Paluch 1984: 35).

St John's wort has been found in the crypts of the Przemyśl Archcathedral, Warsaw Archcathedral (Cat. J185), in the burial of Zofia Lubomirska in the church of the Finding of the Holy Cross and St Andrew the Apostle in Końskowola (Cat. J170), in the crypts under the church of St Francis in Kraków (Cat. J20, J22, J27, J28, J29, J32, J33, J37, J38), in the church of St James in Toruń (Cat. J13), in the church of St Trinity in Byszewo (Cat. J3).

In Słupsk, imperforate St John's wort was found in coffin cushions (Cat. J269, J270).

Yarrow, described in earlier chapter, was identified in the pillow from the grave of Zofia Lubomirska in Końskowola (Cat. J170), the lining of the coffins of children from the Church of Our Saviour in Copenhagen (Cat. C16), the lining of the coffin of a man aged about 30 years buried in Jasna Góra Church in Częstochowa (Cat. J252), the filling of the stocking of Bishop Walenty Wężyk from the crypt under the Przemyśl Archcathedral (Cat. J260). Yarrow also formed the lining in the burial of a child from the former cemetery in Schleswig, from the 12th century (Cat. H163).

Common toadflax (*Linaria vulgaris* L.) was formerly used for protection against charms and as a sleeping aid (Fig. 83). For this purpose, toadflax herb was put under the pillow or directly under the head (Galera *et al.* 2013: 189). Benedykt Chmielowski, author of *Nowe Ateny*, which is the first Polish-language encyclopaedia, believed that it protected against witchcraft. It is one of the plants sacred on the day of Our Lady of the Herbs. In folk medicine, it was used for coughs, against haemorrhages, smallpox and for burns. Cattle were also treated with it (Fischer and Kujawska 2016: 223). The presence of toadflax was recorded in burials in St John the Baptist Archcathedral in Warsaw (Cat. J185), in the Jasna Góra Church in Częstochowa (Cat. J252), and in the crypts under St Francis Church in Kraków (Cat. J21, J30, J32, J33, J36, J38, J39).

The remains of the common bracken fern (*Pteridium aquilinum* (L.) Kuhn) have been recorded in the burials of nuns in Strzelno (Cat. J115), in St John the Baptist Archcathedral in Warsaw (Cat. J185), grave no. 7 in the Church of the Visitation of the Blessed Virgin Mary in Trakai (Cat. I6), in the crypts under the Church of St Francis in Kraków (Cat. J38). Ferns, of which many species were used in the past, were renowned for their properties of warding off reptiles and preventing witchcraft. According to old Polish legend, finding a supposed fern flower on St John's Eve supposedly guaranteed wealth, love and the ability to cure all diseases. The fern was one of the plants blessed on the Feast of Our Lady of the Herbs. Blessed leaves were placed in granaries for protective purposes (Fischer and Kujawska 2016: 253-255).


**Fig. 83.** Common toadflax (*Linaria vulgaris* L.)

Among the plants identified in the burials included in the study, there were repeated findings of weeds and plants rarely recognised by official medicine and folk herbalism. The apparent over-representation of some weeds is result of the state of the research, which is advanced for eastern Poland (hence the presence of plants characteristic of this part of Europe), the different ways of publishing the results of the research (with varying levels of accuracy), making it impossible to create numerical statistics, and the nature of the investigated linings, which are often collections of synanthropic plants collected together with other species. Plants such as various species of sow thistle, buttercups, clover, sorrel, ragwort, yellow chamomile[8], were recorded

[8] Yellow chamomile is found almost exclusively in the Lublin Upland (Fijałkowski and Chojnacka-Fijałkowska 2009: 59).

more than once in the coffins. It must be acknowledged that in the rest of Europe north of the Alps, no such comprehensive study on plants use in modern burials has been carried out yet, taking into account archaeological material consistent in terms of time and geography. Presumably, compiling the results of regional studies, prepared for larger number of areas in Europe North of the Alps, would provide in the future the opportunity to avoid the above-mentioned problems and would help to obtain a synthesis, not becoming a broad compromise.

# 5. EDIBLE PLANTS IN BURIALS

## 5.1. Cereals and flour crops

Cereals played an important role in rituals related to agriculture, fertility and death in many pre-Christian cultures and the triad of meanings may be archetypal (Hansson 2005: 53; Lurker 2011: 428-431). Cultivated cereal grains were used in funerary ceremonies, the preparation of burials, and the commemoration of the dead in ancient Egypt, Greece and Rome and its provinces (Marinval 1993).

Cereals have been found in Viking (7th-11th century) cremation burials. They were burnt together with the body or thrown on top of the incinerated remains of the pyre. They could also be placed in the grave as fodder for horses buried with the deceased or lining under the corpse. In Scandinavia from the Neolithic through to the early Middle Ages, the burial sites were located among agricultural fields, which is considered to be evidence of an ideological connection of agrarian and sepulchral beliefs (Hansson 2005: 54).

The sacrificial feast which can be described as a kind of 'communication' or 'communion' with the deity, was practised in many cultures in different parts of the globe. The Christian Eucharist has its origins in ancient mysteries, a combination of agrarian rituals and beliefs concerning the afterworld, during which sacrifices were offered and consecrated bread and wine were consumed.

For people from antique Greece or Rome, bread and wine represented the basic foods needed for everyday life. The importance of food as a sacrifice, is based on the principle that it is necessary first to destroy raw material (sacrifice) in order to achieve its transformation, for instance grain dies in the ground in order to grow new ears, it is ground to make bread, grapes are crushed to squeeze out the juice (Lurker 2011: 423-427). Christ in the *Gospel of Saint John* directly refers to himself, or his flesh, as bread: "I am the bread of life. Your ancestors ate the manna in the wilderness, yet they died. But here is the bread that comes down from heaven, which anyone may eat and not die. I am the living bread that came down from heaven. Whoever eats this bread will live forever. This bread is my flesh, which I will give for the life of the world" (John 6:48-51).

The second source of the Eucharist is the Jewish Passover supper held to commemorate the Exodus from Egypt. On Passover, the Jews ate a roast lamb, two unleavened breads and bitter herbs (Starowieyski 1987: 31). The feast began with a blessing and the breaking of bread. At the end, the father of the family (or spiritual leader) recited a prayer of blessing and thanksgiving over the chalice of wine, from which Christians took the name of the rite (from the Greek *eucharistia* – 'thanksgiving'). This ritual in remembrance of the last Passover supper with Christ which was repeated by his disciples and the first Christians in Jerusalem. The Eucharist which soon took shape as a rite separate from the Jewish religious rituals, referred in form to the less elaborate Sabbath supper cel-

ebrated every Friday evening (Starowieyski 1987: 35). In the first centuries of Christianity there was also a liturgical meal at a communal table, called *agape*, which declined over time (Starowieyski 1987: 37).

The earliest description of the Eucharist comes from the second century AD in the *Apology of Saint Justin*. After the reading of the Scripture, the celebrant recited prayers and thanksgivings over bread and wine mixed with water. The food and drink were then distributed to the worshippers, and delivered to the absent members of the congregation (Starowieyski 1987: 38). The customs of keeping consecrated bread in homes, carrying it to the sick and prisoners, taking it on journeys and sending it to bishops were practised. The first prohibitions of such practices began to be forming in the 4th century (Starowieyski 1987: 24).

In the early days of Christianity, Christ's presence in the Eucharist was understood to be complete, and the bread and wine were regarded as the true body and blood of the Saviour, even beyond the duration of the rite. In later centuries, as Christianity moved beyond the ancient world, the nature of Christ's presence in the Eucharist became a matter of dispute. In the Middle Ages, the dogma of transubstantiation was accepted in the Roman Catholic Church[1].

In the church in Western Europe, liturgies developed individually in different cultural traditions (Starowieyski 1987: 45). The Eucharist in the Middle Ages underwent changes related to its transfer beyond the Greco-Roman world. Above all, wine and bread made from wheat were not the staple food of people living north of Mediterranean cultures. Moreover, the Christianised Germans grew out of a different symbolic tradition, which emphasized the material impact of objects.

In the Middle Ages, the Eucharist lost its original character as a sacrificial mystery, a thanksgiving feast and a meal to unite the worshippers. It was received very rarely, about three times a year. Masses were evolved into religious services without the celebration of the sacrament of the Body and Blood of Christ (in the late Middle Ages 'dry masses' in Latin *missa sicca* were introduced). The importance of the Eucharist as a sacrifice was only attempted to be restored during the Council of Trent.

For the Western European communities of the early Middle Ages, the presence of food in graves is explained as a legacy of pre-Christian funerary practices. In France, western and southern Germany, in the territories of the Franks and the Alans, in graves are discovered whole vessels, charcoals and leftover food (animal bones, eggshells, fruit stones). The finds are usually interpreted as a pagan meal for the dead, although this explanation is now being challenged by authors who consider the ashes to be the remains of censers, which was not incompatible with Christian ritual at the time (Gärtner 2009: 215). The broken vessels, coals and food remains, on the other hand, are supposed to be evidence of communal feasting on graves. For the early Christians, feasting on the grave was an acceptable part of the funeral and a form of commemoration of the dead. Under the cathedral of Xanten in North Rhine-Westphalia, a double tomb of Christian martyrs from around 400 AD was discovered. In the vicinity of the grave, consumption waste, interpreted as traces of feasting, was found. From the 4th century onwards, the Church opposed the customs of feasting on graves, considering them to be manifestations of paganism (Gärtner 2009: 221).

Also on Polish territory, early medieval finds are perceived as the result of the continuation or adaptation of pagan burial practices to the new Christian burial rules. Traces of fire burning, cereal grains and remains of other useful plants such as peas, hazelnut, vines, hemp, black mustard or poppy are found in graves, deposited in vessels, various kinds of containers or in some other form. These types of grave gifts have traditionally been attributed a magical function, with an orientation towards Slavic Central-Eastern, Eastern and South-Eastern Europe in search of explanations (Kurasiński *et al.* 2018: 176). Atypical grave furnishings are also thought to indicate the persistence of customs associated with offerings to pre-Christian deities (Wawrzeniuk 2004: 150-151).

[1] In the Roman Catholic Church today, it is accepted that during the Eucharist the bread and wine undergo a real and permanent transformation into the Body and Blood of Christ (Starowieyski 1987: 21-22). Lutherans believe in the real presence of Christ in the bread and wine only during the sacrament (consubstantiation), Calvinists in a spiritual presence, other denominations: Baptists, Pentecostals consider the sacrament to be a commemoration of the Last Supper, Orthodox believe in a real transformation through the Holy Spirit.

There are also few proposals for a new interpretation of the furnishings of early medieval burials which attempt to explain phenomena hitherto regarded as pre-Christian, or as reminiscences of paganism, in Christian terms, particularly with regard to graves from cemeteries close to the centres of the new faith in Western Europe (Wittkopp 2009: 190-193).

Among the items of grave equipment discussed, indirectly related to the plants are sickles. In *Revelation*, the end times are described using the metaphor of the harvest: "I looked, and there before me was a white cloud, and seated on the cloud was one like a son of man with a crown of gold on his head and a sharp sickle in his hand. Then another angel came out of the temple and called in a loud voice to him who was sitting on the cloud, 'Take your sickle and reap, because the time to reap has come, for the harvest of the earth is ripe.' So, he who was seated on the cloud swung his sickle over the earth, and the earth was harvested" (Rev 14:14-16). According to Blandine Wittkopp, sickles found in monastery cemeteries are the 'divine instruments' of *Revelation*, and should be considered as Christian grave furnishings alluding to visions of the end times. Perhaps the sickles in the graves can also be understood as Eucharistic symbols through the obvious connection to the harvesting of grain for bread (Wittkopp 2009: 192-193).

In Central Europe, burials with sickles have been found dating from the early Middle Ages to modern times (16th--18th centuries). The iron sickle in the tomb is most often

interpreted as a means of trapping a demonic being in the grave, into which it was believed the dead belonging to specific categories, such as the excluded, disabled or suicides could turn. This explanation is rather applicable to early modern burials. Recently, a grave of a woman with a sickle at her neck and a padlock on her foot from the 17th century was discovered in Pień, in Kuyavian-Pomeranian Voivodeship in northern Poland. The discoverers assume that this is the burial of a person suspected of becoming a vampire, and iron objects were supposed to hinder her from getting out of the grave (*Pień, badania archeologiczne*, n.d.). For burials from the early Middle Ages, several explanations have so far been proposed. Besides an apotropaic function, sickles in graves may be considered the sign of a farmer, a warrior or a wealthy person (Polcyn and Gajda 2015: 1381).

Throughout early medieval Christian Western Europe, the so-called communion of the dead (in Latin *communio mortuorum*) was used as a variant or development of the viaticum. It included placing consecrated bread and wine, or one of two forms of communion, with the deceased in the tomb. The earliest traces of communion of the dead date back to the 4th century. Glass ampullae, chalices and patens have been found in burials, especially of clergy. Unfortunately, it has not been proven whether these vessels originally contained wine or bread. References to this are provided only by historical texts, e.g., in the tomb of the Bishop of Lausanne, Roger de Vico-Pisano, who died in 1220 (Cat. M9), a wooden chalice containing grains was discovered. Wine in a lead chalice and bread on a paten were probably placed in the tomb of the Bishop of Angers, Nicolas Gellent (Cat. F4) in 1290 (Dąbrowska 2008: 166). Traces of perhaps wine and host were found on the walls of a chalice and paten placed on the coffin of an unknown clergyman (Cat. O34) buried in the 13th century at Lichfield Cathedral (Gilchrist and Sloane 2005b: 175). Chalices and patens made of cheaper materials were also placed in graves of lay dead. Fragments of wax chalices were discovered in the parish church of the Sacred Heart of Jesus in Żary, in western Poland.

Communion of the dead was opposed as early as the 4th century at synods in North Africa, but repeated prohibitions suggest that the practice did not cease until at least the 9th century. The profanation of the host remained undefined, for instance according to the 8th century *Life of Saint Basil*, he kept a fragment of consecrated bread to be buried with it. In later centuries, the chalice and paten in the tomb were primarily markers of priestly dignity, but burials of lay rulers equipped with liturgical utensils are also known. Communion of the dead was to persist into the modern period, as evidenced by the records of custom of laying of wine and hosts beside the corpse in the funeral ceremonial of the bishops of Paris in 1763 (Dąbrowska 2008: 167).

The grain or bread in medieval Christian burials was communion and a guarantee of protection from evil for those who did not manage to receive the viaticum. In

light of the literal understanding of the afterlife and Resurrection in the Middle Ages, consecrated bread, wine or grain, as well as other items of grave equipment, were characterised by a causal rather than symbolic action. At the funeral of Emperor Henry IV in 1106 in Liège, participants were told to scatter old grain on his coffin, mix it with new grain and sow it "hoping thereby to obtain an abundant harvest" (Dąbrowska 2008: 165-166). Western European materialism which h also underpins the cult of relics, sanctioned the belief in the transmission of holiness or power through material objects. Thus, the belief in the causal force contained in grain or straw did not conflict with Christian spirituality. It is therefore not necessarily a manifestation of the remnants of ancient pagan beliefs, although can be considered as evidence of a magical way of thinking present in the Middle Ages.

According to classical views, offering of gifts to the deceased which are necessary for their posthumous journey or to guarantee their stay in the afterlife, was transformed in the late Middle Ages and the modern period into the offering to the Church on the funeral occasion. The origins of the wake, or refreshments for funeral participants, are also traced to pre-Christian rituals. Those who provided service to the dead in the early modern period, received gifts of an apotropaic nature – bread, sprigs of herbs or fruit, for protection against the stench of the corpse. The wake which was limited in Protestant cities because of the moral scandals that often accompanied the consolations, involved refreshments consisting in the humblest version of alcohol and sweet cakes.

In Central and Eastern European villages in the 19th and early 20th centuries, food and drinks, including alcohol, were placed in the coffins, which is also sometimes explained as a remnant of pre-Christian funeral rites that were supposed to be preserved among the folk in a slightly transformed form (Fischer 1921: 165-166). In Eastern Europe, elements of the old Slavic rites, involving leaving food for the dead, may have survived into contemporary times. In Belarus, celebrations in honour of the dead featuring eating and leaving eggs, bread or cereals on graves are still alive today. In eastern Poland, the custom of digging or eating eggs on the graves of ancestors was practised until contemporary times (Wawrzeniuk 2004: 151). In the Orthodox Church, during funerals and memorial services a wheat dish called *koliva* is blessed, which originated from the ancient Greek feasts in honour of Dionysus.

In traditional folk culture, the apotropaic function of food is very clear. Food played the role of means of communication with the spirit world. It was expected that thanks to food offerings these contacts would not have negative effects on the living. Protection was especially necessary at liminal moments, such as birth and death. When the corpse was displayed in the house, the coffin was surrounded by food, visitors of the home of the deceased were fed and a feast was held after the funeral. In the rural areas of Poland, grain was sometimes placed by the coffin in a pot with a candle stuck on it. Grain was also sprinkled on household items touched by the coffin to cleanse them of the taint of death which harmed any vegetation. It was believed that a person who touched the corpse, should not graft fruit trees or sow grain (Fischer 1921: 225).

The apotropaic role of bread is manifested in numerous customs associated with transitional moments in life – birth, baptism, the introduction of a child into the community, nuptials and funerals. In folk culture, the baking of bread was understood as a supernatural transformation similar to the pregnancy (Walęciuk-Dejneka 2010). Also in German language, the words *Laib*, *Leib* and *Leben* ('loaf', 'body', 'life') share a common root origin (Lurker 2011: 433).

Adam Fischer, in *Funeral Customs of the Polish People*, listed a number of traditions involving placing of food, groats, bread, grain, fruit or drinks near the corpse which were known in the lands of Poland, Belarus, Ukraine, Russia, Romania, Bulgaria, Slovenia, Czech Republic, Germany, France, Italy, Scotland, Ireland, and among Polish Jews. Food was left for the returning soul (Fischer 1921: 193-201).

The pouring of seeds or grains into coffins, as described by ethnographers, was a way of protection from the revenant who, before leaving the grave, was forced to count or collect all of them first (Kurasiński *et al.* 2018: 182-183).

In the modern period, Eucharistic or Resurrection symbolism of grains seems to have played a key role in its intentional placement in graves. Remembrance of the ancient meanings of grain as a sacrifice which dies in order

to be reborn, was sustained in the modern period through Scripture. It interacted with the Baroque philosophy of the futility and transience of the material world.

The comparison of human death and resurrection to a seed that dies to later sprout again is contained in the Scripture. In the *Gospel of St John*, Christ explains the essence of the resurrection through death by comparing Christians to grains of wheat: "Jesus said to his disciples: 'Very truly I tell you, unless a kernel of wheat falls to the ground and dies, it remains only a single seed. But if it dies, it produces many seeds. Anyone who loves their life will lose it, while anyone who hates their life in this world will keep it for eternal life'." (John 12:24-25). In a similar way, St Paul explained the meaning of the resurrection in his *Letter to the Corinthians* (1 Cor 15:42-44).

On the basis of the Gospel parable and with reference to quotations from Isaiah's prophecy (Isaiah 40:6), emblems with representations of crops, gardens, hay, harvest and fields were created in the modern period to illustrate the concept of the shortness of life and mortality. The warning of inevitable death for all was combined with the hope of Resurrection expressed in the texts under the emblem icons. Typically, the meaning of the emblem motto was that death was a necessary condition for eternal life.

An emblem with a skull, from which grow three ears of grain, was depicted on the tombstone of Elia Jakisch and his daughter Barbara from the Evangelical church in Twardogóra (district of Oleśnica in Lower Silesian Voivodeship), created after 1677 (Cat. J88). The motto refers to the short duration of human life, analogous to vegetation of plants[2]. A similar emblem was placed on the tombstone of a woman who died in 1676, which is located in the wall of St Andrew's Church in Środa Śląska (Lower Silesian Voivodeship).

Bouquets of cereal ears and flowers are held in the hands of deceased children on tombstones from Silesia. Ursula von Promnitz (Cat. J179) was depicted with a bouquet of poppy flowers and ears of grain in the Church of St John the Baptist in Dzietrzychowice. Several ears are shown in the hand of Anna Maria von Hund (Cat. J92) on a tombstone from Oława, from around 1618 (Stankiewicz 2015: 97-98).

[2] It says: „Wie die Frucht im Sommer reisst so der Tod uns greifen".

Cereals have been a dietary staple for centuries. In the late Middle Ages, the percentage of cereal remains found during archaeological excavations carried out in cities of Kraków and Gdańsk was lower than in the preceding centuries, which may reflect development of trade and the changes taking place at that time in the system of its processing. From now on it was mainly taking place outside the city walls (Mueller-Bieniek 2012: 82). The most widespread flour cereals were wheat and rye and the less commonly consumed barley. In the modern period, wheat was much more expensive than rye. Flakes and groats made from oats were also consumed, although oats, like barley, were mainly fed to animals (Badura 2011: 193). Barley was also used for beer brewing. Straw of rye and wheat served as a roofing material (Mueller-Bieniek 2012: 81-82).

A possible reason behind the discovery of cereals inside burials is the use of straw coffin linings and straw-filled pillows, or employing of straw during the ablution of the deceased's body. In this way also grains may have been transported to the burial unintentionally.

A single fragment of a burnt cereal grain was found in the material from the coffin filling of a woman in the cemetery at the former Cistercian convent in Koszalin (Cat. J267) who died at mature age (*maturus*) between the mid-13$^{th}$ and early 14$^{th}$ centuries. Its state of preservation did not allow the taxon to be determined (Abramów *et al.* 2015: 208).

Furthermore, grains, ears of grain and cereal fragments have been found in early modern burials. In a sample from the lining of the coffin of the nun Johanna Dorothea Maria von Estorff (Cat. H109), deposited in the crypt beneath the Chapel of Saint Barbara in Lüneburg, in addition to the remains of the common hop (*Humulus lupulus*), 3 fragments of ears and 3 whole ears of rye, about 8 hulled grains of oats (*Avena sativa* L, Fig. 64), a whole ear of lopsided oat (*Avena strigosa* Schreb.) and a fragment of a barley husk were determined (Wiethold 2005: 31). Lopsided oat (*Avena strigosa*), now a field and ruderal weed, was cultivated until the 19$^{th}$ century (Lityńska-Zając and Wasylikowa 2005: 106). Rye, oats and barley were found in the lining from the coffin of the Bishop of Lund, Peder Winstrup (Cat. N11; Lagerås, 2016a, 2016b: 17-19).

Rye seeds and corn-cockle seeds were identified in the lining of Ann Belfour's coffin (Cat. C13) buried in the crypt of St Olaf Cathedral in Helsingør. Grains of barley (*Hordeum vulgare*), wood shavings, hops (*Humulus lupulus*), pea seed (*Pisum sativum* L.), common rue (*Ruta graveolens* L.), juniper (*Juniperus communis* L.) and hyssop (*Hyssopus officinalis*) formed the lining of the coffin of Hans Andreas Nordborg (Cat. C2) in the crypt of the same church. Two further burials of persons unknown by name contained cereal grains and the remains of cereal crop weeds (Cat. C4, C5). The deceased circa 1760 (Cat. C10) was buried on a lining and cushion filled with wood shavings, between which hop fruit (*Humulus lupulus*), oat seeds (*Avena sativa*, Fig. 64), barley grains (*Hordeum vulgare*, Fig. 84), corn-cockle seeds (*Agrostemma githago* L.) and an unidentified flower from the *Labiatae* family were recognised. In the lining from the coffin of anonymous child who died around 1700 (Cat. C7), straw, hop (*Humulus lupulus*), oat seeds (*Avena sativa*) and fragments of an ear of barley (*Hordeum vulgare*), were discovered. In addition, a single seed of corn spurry (*Spergula arvensis* L.), a weed associated with cereal and legume crops, was detected. Also recorded in the lining were the remains of flowers from the *Compositae* family, seeds of corn marigold (*Chrysanthemum segetum*) and a single seed of devil's-bit (*Succisa pratensis*) (Karg 2001: 133-142).

Straw with ears of barley (*Hordeum vulgare* L.) was discovered in the coffin lining from the grave of a woman buried in Thaldorf cemetery (Cat. H143). Fragments of pods of an unspecified plant from the *Fabaceae* family were found in the same burial. Numerous species with utilitarian value belong to this family: edible, fodder, oilseed and green manures. The *Fabaceae* were grown in rotation with cereals. It is possible that an unspecified plant was one of the useful plants or ended up in the coffin mixed accidentally with cereals (Hellmund 2006: 266).

Grains of proso millet (*Panicum miliaceum* L., Fig. 85) are a particular find in modern burials. Millet is one of the cereals most frequently found on archaeological sites dating from the early Middle Ages. Its contribution to the botanical material decreases in later centuries, but it is still one of the greatest represented cereals in urban stratifications in the late Middle Ages. The reasons for this can be attributed more to its past storage and processing methods which facilitated the spread of decay-resistant millet husks in and around human settlements, than to its actual popularity (Mueller-Bieniek 2012: 75-76). Nevertheless, it was one of the staple cereals in Central Europe (Badura 2011: 193). The finds from latrines prove its important role in the daily diet of the bourgeoisie between the 14th and 18th centuries (Badura 2011: 158). Millet was mainly consumed in the form of groats while other cereals were cooked into pulps and used to bake bread (Badura 2011: 185). Processing it into porridge resulted in numerous remains being preserved in the archaeological materials. It was also fodder for domestic fowl, thus the high concentration of finds in the rear of residential plots (Badura 2011: 157).


**Fig. 84**. Barley (*Hordeum vulgare* L.)


**Fig. 85.** Proso millet (*Panicum miliaceum*)

A lump of millet seeds was found inside the stocking of Bishop Walenty Wężyk (Cat. J260) buried in the Przemyśl Archcathedral. Other plants from the stocking were mixture of cultivated herbs. The unusual form of application led Agata Sady and Katarzyna Pińska to speculate on the apotropaic role of the find. The grain placed in the stocking was supposed to be food for the deceased who thus could be functioning in the afterlife. This seems doubtful in the burial of a high ecclesiastical dignitary. However, it must be acknowledged that the Church's control did not extend to this aspect of preparing the deceased for the ceremony. It is likely that, in the case of Bishop Wężyk, the mass made from millet served a medicinal purpose, as the bishop was suffering from an infection of his lower limb. Amputation of the foot did not stop the progression of the disease and the bishop died (Drążkowska 2014: 102, 2015: 305).

Traces of millet were also discovered in the coffin of Anne d'Alègre who died in 1619 and was buried in the crypt at the Vieux-Chateau in the Ville de Laval in the Loire region of southern France (Cat. F5). The brain and internal organs were removed from Anne's body and the empty cavities were filled using plants, including common millet. The bottom of the coffin and the pillow were covered with plant matter. Most species belonged to the umbelliferous, *Compositae* and *Labiatae* families, along with grasses characteristic of wetland habitats (Ruas 1992: 87- 91). Recently, millet remains were identified in the chest fill of a man buried beneath the church of St Francis in Kraków (Cat. J39).

The presence of proso millet grains was indicated in burials at the Norbertine monastery in Strzelno (Cat. J8; Święta-Musznicka 2021: 209). The agricultural crops discovered in the Strzelno burials were quite likely to have been part of bouquets or wreaths blessed in churches to celebrate Our Lady of the Herbs. In one of the burials, millet was found to have been intentionally scattered around the body (Cat. J116). The use of sacrificial bouquets or 'horns of plenty' filled with agricultural crops can also be assumed in the burials of the nuns in Lüneburg (Ströbl and Vick 2007: 53).

In emblematics, the representation of millet illustrates the concept of 'purity' or 'immaculateness'. An emblem with a bundle of millet held by a hand emerging from the clouds was described with the maxim: "Mich und andere zu bewahren, ist mein Teil. Sich und andere bewahrt ein züchtiges Weib vor Vergehen, wie auch die Hirse den Fäulniserreger fernhält" (Henkel and Schöne 1996: 329).

Adam Fischer in *Zwyczaje pogrzebowe ludu polskiego* lists numerous rituals related to the sowing of millet and the process of cleansing the grains by sifting them over a flame or by incensing them. Millet was important attribute during Christmas Eve suppers, wedding rituals, and the casting of charms (Fischer 1921: 253). It was used during funerals to prevent the return of the dead in the form of a wraith. It was poured into the mouth, scattered in the coffin and on the road leading to the cemetery. The restless soul was supposed to collect the seeds which prevented it from wandering back among the living. Poppy seeds and other useful plants were supposed to also be used in a similar way. Southern Slavs serve mil-

let cakes as a traditional meal at funerals (Kurasiński *et al.* 2018: 187-188).

The mattress and pillow fills from the burial of Bishop Peder Winstrup in Lund contained the remains of more than a dozen plants identified to genus or species level (Cat. N11). The majority of these are cultivated plants and wild plants formerly collected for consumption, economic and medicinal purposes. The burial took place in January 1680, so the plants must have been stored, probably in dried form, in a household larder or apothecary. Bishop Peder suffered from chronic illnesses which he may have tried to treat with herbs.

There were two cushions under the bishop's head. The large cushion, made of silk, was filled with hop cones, grains and a small amount of oat, barley and rye straw. It also contained an admixture of flowers and seeds of lavender, hyssop, lemon balm and dill. Juniper berries and leaves, boxwood leaves and individual seeds of several other plant species were also found inside the cushion.

Underneath the silk cushion was a smaller one which was filled with aromatic plants: lavender, hyssop, lemon balm, the flowers of dwarf everlast (*Helichrysum arenarium*), a small admixture of juniper, dill, boxwood and other plants. Under the cushion were wood shavings.

The bishop rested on a mattress, the lining of which contained predominantly hop and cereals. The bottom of the coffin was filled with dry plant matter, mainly two species of mugwort: wormwood and southernwood. Among the medicinal plants, of which single traces were obtained by archaeobotanical analysis, the author of the study mentions black henbane, black nightshade, dwarf elder, hemp, cornflower and common marigold. Grasses and sedges and mouse-ear chickweed which grows wild in wet meadows, were also recognised in the burial.

Alongside the intentionally placed aromatic herbs, shavings and straw, the isolated botanical remains and individual seeds of consumable plants which, as the author of the study notes, may have originated from the home garden and their presence in the coffin is presumably coincidental. These include a cherry stone, hazelnuts, flaxseed and flaxseed capsules, buckwheat seeds and field mustard seeds (Lagerås 2016a, 2016b: 17). Carrot (*Daucus carota*) seed remains were also distinguished in the archaeobotanical material, but unfortunately no further details necessary for the interpretation of the find were provided. Carrots were also discovered in the burial of a man in the crypt beneath the church of St Francis in Kraków (Cat. J38) which, as in the case of Bishop Peder, contained numerous food and utility plant species.

Field mustard (*Sinapis arvensis* L.) was formerly a weed of flax crops, but is also found in cereal crops. It may have been used as animal feed, but it was also sometimes consumed by humans. Corn spurry and cornflower discovered in burials also belong to the weeds of cultivated fields. Some of the identified plants, such as common sowthistle, colonise rubbish dumps and other areas transformed by humans (Mueller-Bieniek 2012: 200-201).

Buckwheat (*Fagopyrum esculentum*, Fig. 86) is one of the pseudocereals. Buckwheat fruit was used to make groats and flour which was not suitable for breadmaking due to its lack of gluten (Badura 2011: 111). In towns and cities, constant presence of buckwheat in the diet is recorded from the 12$^{th}$/13$^{th}$ century, throughout the modern period and up to the present day (Lityńska-Zając and Wasylikowa 2005: 159).

Bishop Peder's coffin also contained foxtail millet (*Setaria italica*) which was cultivated in medieval and modern times. It was made into groats and cakes and served as animal feed (Badura 2011: 109-110).

Hemp, discovered in the bishop's coffin, was also cultivated for consumption. The roasted oil cakes were turned into porridges, soups, drinks and pulps. Besides, it was an oil and fibre crop (Mueller-Bieniek 2012: 84).

Among the plants from bishop's burial melde (*Chenopodium album* L.) was also identified. Melde was used to make flour and also as a feed for poultry. The young leaves of melde are edible. It was called a famine plant (Badura 2011: Tab. 25). However, it is unlikely that melde was formerly cultivated (Lityńska-Zając and Wasylikowa 2005: 160).

The remains of three poisonous plants were found in the bishop's coffin. Black henbane (*Hyoscyamus niger*) and wild dwarf elder (*Sambucus ebulus* L.) may have been cultivated for medicinal purposes, while black nightshade (*Solanum nigrum*, Fig. 87) was probably collected from the wild. Used in moderation, these plants could have provided a therapeutic effect and may have been stored for this

purpose. Among plants being former herbal medicines in bishop's Peder coffin was found also common bugloss (*Anchusa officinalis*) which was also used also as a dye plant.

## 5.2. Fruit in burials

**Fig. 86**. Buckwheat (*Fagopyrum esculentum*)

Edible fruit is found very rarely in burials, with the exception of citrus fruit whose association with funerary ceremonies has been reported in Germany (Neurath-Sippel 2011: 121).

The fruit in Europe north of the Alps may has ended up in the graves as accidental deposits. Animals intruding into the crypts may have been responsible for the accumulation of fruit, seeds or nuts inside the coffins. It is also possible that the fruit was placed along with other plant material, with which the coffin was filled, or as a result of other post-burial processes.


**Fig. 87**. European black nightshade (*Solanum nigrum*)

In the 19th and 20th centuries in Polish villages, as grave goods in children's tombs served objects that brought pleasure to the deceased during their lifetime, e.g., toys, nuts, pumpkin seeds or apples. Adults were also given their favourite treats for their last journey. These were often snacks, especially apples (Fischer 1921: 166). Similar funeral customs were known in Scandinavia (Sidén 2016: 133-134). It is likely that fruit was put into coffin spontaneously, the same as other items of a personal nature. However, it is impossible to answer the question of whether fruit was placed in graves in the modern period to comfort or entertain the deceased, as it was done in later times.

Archaeological finds of apples in burials are scarce. Recently, apple seeds were discovered inside a cushion from the coffin of a man buried beneath the Church of St Francis in Kraków (Cat. J38).

In Gothic sculpture and paintings, apples can be seen in the hand of the baby Jesus. The fruit symbolised the

original sin redeemed by Christ's Passion. Other fruit, such as pomegranates, peaches, grapes, oranges, figs, or quinces, may also have foreshadowed Jesus' future role as a Saviour, although it was apples that played this role most commonly (Michniewska 2014: 67-69). Their colour and juiciness caused them to be associated symbolically with blood. The shape of the fruit alluded to the globe or *globus cruciger*, an insignia of royal power.

In the ancient Latin, all fruit was referred to by the common name *malum*. The addition of a specific epithet created a name that allowed more precise identification. This inaccuracy encouraged misinterpretations. In the Middle Ages, the apple tree was associated with the tree of the knowledge of good and evil in the middle of the Garden of Eden, and the apple with the forbidden fruit, becoming the symbol of original sin. At the same time, the fruit adopted the opposite meaning. In its positive aspect, the apple signified life, fertility and resurrection. It also symbolised Christ himself who hung on the tree of the cross for salvation of people.

Apples and pomegranates were depicted on early modern tombstones from the 16th century onwards. Representations of pomegranates in medieval paintings of Europe north of the Alps reveal that artists had rarely seen them in nature (Michniewska 2014: 68-69). On tombstones from the territories of Poland and Germany, apples were shown in the hands of deceased children and, less frequently, adult women. In the St Andrew's Church in Legnica, Zuzanna von Zedlitz who died in 1540, holds a heraldic shield in one hand and an apple in the other (Cat. J78). An apple (insignia?) is shown in the hands of a boy of the von Reibnitz family, who died in 1579, depicted on a tombstone from Wierzbice (Cat. J134), on a tombstone of Esaias from Wińsko (Cat. J129), of Johanna Maria von Salisch from Masłów (Cat. J119), of Anna Helena von Zedlitz of Zarzyca (Cat. J96), and Elisabeth Stake (Cat. J70), whose tombstone is located in Jelenia Góra (Stankiewicz 2015: 116). A tombstone of Cordula Margareta von Braun (Cat. J366) who died on 15 August 1664 at the age of 38, is preserved in the Church of the Visitation of the Blessed Virgin Mary in Radziechów. The woman holds a prayer book in her left hand and an apple in her right. Baskets of apples are held in the hands of sisters Margrete and Ellen Rosenkranz (Cat. C23), whose figures are carved on a family gravestone made for their father Holger Rosenkranz and his two wives, dated around 1573, located in the church in Uth, Denmark (*Uth Kirke* 2010: 1067-1068).

In the 16th-17th centuries, children were portrayed with attributes appropriate to them which pointed out their young age and the fact that the models were not yet fully formed. These included toys, animals, flowers, various fruit in the hands or in small baskets. The apple in the hand of the young prince Sigismund Vasa, later king of the Polish-Lithuanian Commonwealth, in the portrait by Johan Baptiste van Uther, is an attribute of a child, but perhaps also of a future ruler. The fruit in the secular portraits alluded to representations of the young Christ. The colour red symbolised blood, fragility and the necessity of protecting the child. The importance of a proper upbringing of the young was emphasised, therefore the portraits occasionally included scenes of animal training, with fruit being given as a reward. Children were often portrayed with cherries, apples, grapes, melons, pears and peaches. Portraits with citrus fruit were meant to highlight wealth and belonging to a prominent family. The fruit shown in the hands and baskets on the gravestones is probably not evangelical or funeral-related symbol, but a repetition of a convention already known from secular art representations.

The nuptials from the *Song of Songs* are perhaps referenced in the gravestone for one-year-old Carolus Zeuch from the Evangelical church in Niedenstein-Wichdorf, Hesse (Cat. H82). The boy died in 1675. He is depicted with a palm branch in his right hand. On his left side grows a tulip flower. Above his head, two angels are holding up a wreath and a crown. Branches weighted with overhanging apples are shown on either side of the main figure (Seib 2007: 152).

Apples have been consumed by humans since at least the Mesolithic period. The native wild forest apple tree, the European crab apple (*Malus sylvestris*), grows in temperate climate zones. The fruit of wild apple trees has been harvested for centuries. The development of fruit-growing in the early Middle Ages in Central Europe is linked to the arrival of monks from Western Europe. From the Middle Ages onwards, the domestic apple tree (*Malus sylvestris do-*

*mestica*) was cultivated on Polish territory (Lityńska-Zając and Wasylikowa 2005: 203). Both species were mentioned by Marcin of Urzędów. Among the domestic apple trees, he listed, depending on the taste of the fruit, sweet, sour, tart, intermediate and wine varieties (Marcin of Urzędów 1595: 357).

Modern naturalists considered fruit a hardly nutritious food which is either inert or harmful to the body. Marcin of Urzędów argued that apples are not healthy for people with imbalance of humours. Apples should be served at the end of a meal, as they irritate the stomach (Marcin of Urzędów 1595: 357).

According to another naturalist, Stefan Falimirz, sour apples contribute to the proliferation of phlegm, leading to fever, cold stomach, coughing and overproduction of saliva. The nearly ripe, tart fruit is of a dry and cold nature which is associated with the earth element. They are healthy in specific instances (for a 'hot stomach'), but eating them can cause bloating, dryness or ulceration of the lungs (Falimirz 1534: List. 23, Cap. 49). According to Polish folk medicine, raw apples may have been a remedy for heartburn which is probably linked to their alleged cooling properties, recognised earlier by Renaissance naturalists (Paluch 1989: 144).

In Europe, folkloric customs for weddings, betrothal ceremonies and also related to love magic are known, in which apples played an important role (Forstner 1990: 166). In Antiquity, apples represented fertility. Most likely, however, it was the fruit of the pomegranate (*Malum punicum*), and not the apple, that was ascribed aphrodisiac properties.

In popular culture, apples are associated with St Blaise's Day (3rd of February). On this day, the fruit was sacred and eaten to prevent sore throats and toothaches. Dried, ordained apples were kept for medicinal purposes. In eastern Poland, a decoction of boiled apple tree roots and bark was drunk to induce menstruation and miscarriage (Paluch 1989: 144).

Other fruit discovered in the graves included plums and cherries. Remains of edible fruit were found in the coffin of several-year-old Weighard von Promnitz (Cat. J254) who died in 1646 and was buried in the crypt of All Saints' Church in Pszczyna. The pillow and mattress from the boy's coffin contained hop cones and conifer shavings, while buckwheat, cherry seeds, plum seeds, and acorns were identified in the coffin filling beneath the body (Botor 2012; Stankiewicz 2015: 101-102).

Cherry or bird cherry seeds were also discovered in the grave of Antonina Skórzewska (Cat. J17) buried in a private crypt in Łabiszyn in the 1st half of the 19th century (Kochman 2012: 31). Cherry or bird cherry has been identified in burials in the crypts of the Holy Trinity Church in Byszewo. In the burial of Bishop Peder Winstrup in Lund (Cat. N11) the remains of a common cherry (*Prunus cerasus*) were found.

Cherries (*Cerasus*) have been cultivated in Europe since Antiquity. In Poland, the beginnings of cultivation date back to the early Middle Ages. The seeds of sour cherries and sweet/bird cherries are hardly distinguishable from each other in archaeological material. The cherry trees occur wild in deciduous and coniferous forests of the temperate zone (Lityńska-Zając and Wasylikowa 2005: 135-136).

In his *Polish Herbarium*, Marcin of Urzędów, following Pliny the Elder, stated that sour cherries came in white and black varieties. White sour cherries were said to stimulate the stools while consuming of red cherries had the opposite effect. Following Dioscorides and Serapion, who linked the red of the fruit to blood, the author of the *Herbarium* writes that red sour cherries "make the sex beautiful" and stimulate blood production. White cherries are sweet and watery. Consumed before the main meal, they soothe the stomach and relieve dryness in the throat. Red cherries which are characterised by a sour taste, dry out the stomach, so it is healthier to eat them after a meal (Marcin of Urzędów 1595: 332). According to Leonard Fuchs, both plums and cherries are harmful for the stomach (Fuchs 2016: 226, 239).

In Polish folk medicine, a decoction of properly extracted cherry bark was drunk to induce menstruation and miscarriage or to stop discharge. To accelerate menstruation, the bark was scraped downwards while discharge was stopped by drinking an infusion of bark scraped upwards (Paluch 1989: 159).

The domestic plum (*Prunus domestica*) has been known in Central Europe since the Roman period. On Polish soil, its cultivation began in the early Middle Ages (Ba-

dura 2011: 163). There is also wild plum (*Prunus spinosa*) which grows in temperate climate zones. Plum trees are expansive, often going wild and spreading from cultivation (Lityńska-Zając and Wasylikowa 2005: 203). During the Middle Ages, not only the cultivation of plum and cherry trees, but also small-scale home orcharding became widespread in the Polish lands.

Plums, as other fruit, were not appreciated by modern naturalists. Marcin of Urzędów wrote that "they provide little food; they disturb the stomach." They were thought to be cold and moist by nature. Consumption of the fruit of the domestic plum can result in laxity, understood as bodily humours regulation, which is why it was formerly seen as somewhat useful in the treatment of cholera fever. Decoctions of the leaves could be used to relieve pimples in the throat, and a concoction of the resin was supposed to treat lichen (Marcin of Urzędów 1595: 375).

Acorns were sometimes eaten as an additive to flour. They also served as fodder for animals (Badura 2011: Tab. 25). Oak bark and galasses were used to prepare black dye. Besides economic exploitation, acorns were formerly used for divination. The mighty oak trees were probably considered sacred by the Slavs. A sign that oak trees have been worshipped in the past is the custom of hanging shrines and crosses on them and the belief that cutting down an oak tree brings pestilence and misfortune. In many cultures, the axis of the world was imagined in the form of a tree which connected the underground with earthly and heavenly realms. In subsequent folk beliefs, the oak was still considered an exceptional tree that bestowed power. According to Pietro de Crescenzi, Italian author of agricultural handbook, smoke from oak leaves was believed to counteract devilish spirits. Oak was thought to have the ability to purify the air. Oak wood was expected to counteract witchcraft, therefore a pegs made of its wood were placed in graves of people who could turn into wraiths after death. Oak leaves were believed to be used by witches to cast spells. According to early modern herbalists, acorns helped for poisonings. Lichen, frostbite, rheumatism and other skin conditions were formely treated with them (Fischer and Kujawska 2016: 129-132). In folk medicine, acorns or oak leaves decoction were used to heal tuberculosis, teeth and skin disorders. Another method to combat toothache was reciting magic formulas under an oak tree. Carrying sick children over the forked branches of the oak tree guaranteed their recovery. The same procedure was applied to cure epilepsy and cold sores (Paluch 1989: 140).

Twigs and leaves of oak were identified in burials in a church in Częstochowa (Cat. J247) and a bouquet from a coffin in Brandenburg an der Havel (Cat. H41). An acorn was discovered inside a pillow in the burial of a man under the church of St Francis in Kraków (Cat. J38). In addition, fruit of the red raspberry (*Rubus cfr idaeus* L.) was found in the same grave.

In the burial of a young child (Cat. J10) in the Church of the Holy Trinity and the Blessed Virgin Mary in Strzelno from the late 18th century, one whole and six fragments of unripe peach seeds (*Persica vulgaris* L.) were discovered (Sulkowska-Tuszyńska 2007: 47, 2010: 419; Święta-Musznicka 2021: 211).

Peaches have been known in Central and Western Europe since Antiquity. On Polish soil, they have been cultivated since the early Middle Ages (Lityńska-Zając and Wasylikowa 2005: 145). For Marcin of Urzędów, peaches were such common fruits that that he omitted the description of their appearance ('Everyone knows peaches, no need to write them down'). He believed that peaches were not harmful. Following Galen and Avicenna, he recorded that peaches should be eaten at the beginning of a meal, as they stimulate the appetite. Peaches had been considered a 'watery' fruit. For this reason, the author of the *Polish Herbarium* advised that they should be administered to quench thirst in a fever. Peach leaves could be used to prepare a medicine for roundworms (Marcin of Urzędów 1595: 358-359).

On the other hand, Leonard Fuchs believed that peaches quickly decompose in the stomach damaging it and causing abdominal pain. Eaten before or during a meal, they ruin its positive qualities (Fuchs 2016: 229).

Despite numerous objections, fruit and fruit preserves were consumed frequently and featured in recipes, especially in sweet dishes, but also as accompaniments to savoury meals. In written sources, such as pantry reports and larder inventories, home-grown fruit was sometimes omitted. Because of the short shelf life of fruit, it was not transported long distances. Deficiencies in own resources

were made up for by small local trade. In the 18th century, apples, pears and plums were dried for the winter, made into jellies, jams and pickles (Szylar 2012: 273, 274).

Fruit was a common children's food, as shown in paintings from the 16th-17th centuries. According to Szymon Syreniusz, fruit should be used to season dishes for the youngest. In his opinion, the presence of vegetables and fruit in children's diets is advisable, as they make the child grow faster (Żołądź-Strzelczyk 2012: 206-207). Accounts of the Dominican monastery in Warsaw from the 17th--19th centuries reveal that apples, raspberries, plums, and cherries were purchased for the sick (Szymborski 2009: 88), suggesting that in modern times there was no fear of the harmfulness of fruit preached by the ancient theorists and quoted in herbaria.

Lemon and orange played an important role in funeral ceremonies in modern Germany, especially in its central and southern part, but also in Pomerania and Silesia (Neurath-Sippel 2011: 125). In the Protestant towns of Pomerania, lemons were used so commonly at funerals that records of them as a gift for coffin bearers can be found in in anti-luxury regulations issued by the town ccouncils from the 17th century onwards (Kizik 1998: 254).

From the 18th-19th centuries, there are accounts of different variants of the custom of granting citrus fruit to funeral attendees. Lemons were mainly given to those in the procession who were closest to the dead body. The gift was offered not only to the corpse-bearers, but also to the clergy, cantors and churchmen. Lemons in the hands or stuck on special rods were illustrated in prints showing the mourning attire of townspeople and members of confraternities of dead. *Begräbniszitronen* and *Trauerzitronen* are also mentioned in written sources. Purchase of lemons is evidenced by funeral bills. At a burgher funeral, even more than 20 pieces of this fruit were used. Twenty one lemons were purchased for the ceremony of Susanna Maria Löffelholz, who died in 1705 (Neurath-Sippel 2011: 121--131), and twenty-eight for the funeral of a burgher from Frankfurt. Beside lemons, corpse-bearers were sometimes offered sprigs of rosemary and refreshments such as bread, tobacco and alcohol (Kizik 1998: 253-254).

**Fig. 88.** *Portrait of a deceased girl*, beginning of 20th century, Historisches Museum Regensburg

Citrus fruit was occasionally decorated. In southern Germany, funeral guests were offered oranges with cloves stuck into them. From these, the initials or names of the deceased were formed, along with the dates of death (Stankiewicz 2015: 116). The fruit was thrown into the grave at the end of the ceremony. Hamburg carpenters in the 19th century threw lemons on the lid of a coffin lowered into a pit while listening to the loud rumbling which was supposed to provoke reflection on the futility of human life. Members of the Bremen masons' guild, on the other hand, squeezed a lemon onto the coffin. During this ritual, the pastor uttered the words: „So sauer wie diese Zitrone, so sauer war auch dein Leben. Tschüss Kamerad – auf dieser Welt gibt es für uns kein Wiedersehen" (Hille-Priebe, n.d.). The most recent ethnographic evidence of the use of lemons at funerals (Fig. 88) dates to the second half of the 20th century (Kürzinger 2017: 83; Neurath-Sippel 2011: 126-127).

Citrus fruit was known and possibly cultivated in ancient Rome. The first records of citrus tree cultivation in Europe during the Middle Ages are contained in Arab agricultural treatises from the 10th century. The citron (*Citrus medica*), the ancestor of lemon, may have been cultivated in the Iberian Peninsula from the 7th century, the bitter orange (*Citrus aurantium*) from the 10th century and the lemon tree (*Citrus limon*) from the 10th-11th centuries. The first appearance of citrus in France is dated to the 12th-13th centuries. In the 12th century, the Arabs cultivated also the grapefruit tree (*Citrus maxima*). In the 14th century, they introduced limes (*Citrus aurantifolia*; Ruas *et al.* 2018: 160).

From the 13th century onwards, citrus fruit was first mentioned in European compendia of medicinal raw materials (*simplicia*). This is also when the imported fruit reached the wealthiest people in Western Europe. Images of citrus were circulated in medical books from the 15th century (Ruas *et al.* 2018: 161).

The introduction of citrus fruit into the cuisine of the European elite in the Middle Ages proceeded rather slowly. In medieval French recipes, citrus fruit is extremely rare. Oranges were used more often than lemons. In the 15th century, fresh oranges could be purchased at Parisian markets. The oldest written sources on the cultivation of orange trees in southern France date from the first half of the 15th century.

Northern European medieval written documents, on the other hand, make no mention of citrus fruit in a culinary context (Ruas *et al.* 2018: 164). Lemons were known at the court of King of Poland Władysław Jagiełło and Queen Jadwiga. The royal couple received them as a gift from the burghers of Lviv (Sperka 2012: 66).

In the Middle Ages, citrus fruit symbolised purity and virginity. In Gothic and Renaissance art, flowers and citrus fruit were combined with the image of Mary. They were depicted in the hand of the little Jesus as a symbol of his future Passion. In the paintings of Europe north of the Alps, realistic depictions of citrus fruit in vessels or on tables accompany representations of the Virgin Mary.

The earliest depiction of a lemon in tomb sculpture dates from the 13th century. In the double sepulchral portrait of Count Heinrich von Sayn (Cat. H16) and his daughter, already described above, a girl holds a lemon in one hand and a sprig of rosemary in the other (Neurath-Sippel 2011: 122). The lemon and rosemary became wedding plants in later centuries and were also used at funerals. Perhaps these symbols were intended to accentuate the premature death of Count von Sayn's daughter. Lemons were believed to be imperishable and therefore symbolised virgin purity. As a result of its association with the mythical golden fruit, the lemon became a symbol of immortality in the Middle Ages and, in this case, is perhaps a sign of the eternal life shared by the two people depicted.

The lemon was identified by modern Northern European humanists with the golden apple from the Garden of Hesperides, given to Hera by the goddess Gaia for her wedding with Zeus. Marcin of Urzędów in *Polish Herbal* began his note on the lemon by citing the myth of the immortality-granting fruit stolen by Hercules: "These were the golden apples in the Garden of Hesperides, which the three maidens guarded in the orchard, walled up: and so that no one could enter, a dragon was kept at the door whom Hercules then killed, and plucked the apples, and so multiplied them throughout the world" (Marcin of Urzędów 1595: 337).

In early modern Europe north of the Alps, citrus trees were grown in the private estates of the elite and in gardens

as a botanical curiosity. As a result, they came to be regarded as a symbol of wealth. Lemons were served to guests at ceremonial gatherings, such as the wedding feast of King of Poland Sigismund III Vasa with Anna Habsburg in 1592 (Barwicka-Makula 2012: 178). Citrus fruit appear in exquisite modern recipes, for example in the *Compendium Ferculorum* by Stanisław Czerniecki, written at the Lubomirski court, and in the Radziwiłł family's *Method for a Very Good Preparation of Various Confections*.

The multitude of citrus varieties and hybrids cultivated in the modern period exceeds the number known today. The variety of them is evidenced by printed catalogues of specimens from the most famous botanical collections, some of them accompanied by graphic depictions. At the end of the 17th century orangeries were being created at the estates of the wealthy and in the gardens of the bourgeoisie. Orangeries were also established at some monasteries (Szylar 2012: 273-274). A list of plants cultivated in the garden of Caspar Wilhelm Sculteus, located at the intersection of today's Świdnicka and Piłsudskiego Streets in Wrocław, is kept in the Wrocław University Library. According to a brochure from 1731, as much as 161 species and varieties of citrus were grown there (Jagiełło-Kołaczyk and Brzezowski 2014: 281).

Horticultural manuals included advice on how to grow thermophilic plants in cool climates. In *Jardinier Hollandois* written by Johannes van der Groen, which book published in 1669 was also well-known in modern Wrocław, recommended that orange trees planted in wooden boxes should be moved to a heated cellar in October or early November. They were not to be placed outside again until May (Jagiełło-Kołaczyk and Brzezowski 2014: 34). Special buildings equipped with movable stoves, which were dismantled in summer, were also constructed for citrus cultivation.

A bouquet containing lemons and cloves was found in a child burial in the Admiralty Church in Karlskrona (Cat. N4; Nyberg 2010: 25-26). Citrus tree branches were discovered in burials in Brandenburg an der Havel (Cat. H37, H41).

Finds of citrus remains in latrines and waste pits in cities in the Netherlands and Germany suggest that citrus was consumed at this time and available not only to the wealthy. In Germany, remains of sweet orange or mandarin (*Citrus sinensis*/*Citrus reticulata*), and pomelo or grapefruit (*Citrus maxima*/*Citrus paradisi*) have been found in archaeological materials from the 17th and 19th centuries (Ruas *et al.* 2018: 165). The growing demand for citrus fruit led in the 18th century to the emergence of a group of specialised merchants who traded between Italy, where regions of agriculture oriented mainly towards the cultivation of lemons were taking shape, and Europe north of the Alps. Facilitated access to lemons has been recorded on Polish soil since around the 1730s (Kościelak 2012: 259).

In the modern period lemons were considered a more medicinally valuable fruit than oranges. Initially, they were rarely eaten for pleasure or for their nutritional value. Lemon juice, peel, seeds and leaves were treated as medicinal raw materials. Marcin of Urzędów describes the properties of the tissue of the 'citric apple', emphasising the different nature of each of its elements. Lemon juice was considered cold and drying to a higher degree than the peel. It was suitable as a remedy against fever with chills (Marcin of Urzędów 1595: 337). Also, in Krzysztof Kluk's *Dykcyonarz roślinny* (*Plant Dictionary*), there is information that lemon juice should be administered in cases of fevers and other 'rotten diseases'. Kluk calls lemonade a cooling drink for both the healthy and the sick (Kluk 1805: 137). Lemon peel whose nature is hot and dry, is supposed to stimulate the stomach (Marcin of Urzędów 1595: 337), nourish the heart and refresh (Falimirz 1534: List. 20, Cap. 42). According to the German physician Walther Hermann Ryff, lemon counteracts venom and decay (Neurath-Sippel 2011: 129). A powder of lemon peel and cloves drunk in wine was believed to protect against 'venomous air' (Falimirz 1534: Letter 20, Cap. 42). Lemon leaves and seeds were also used for therapeutic purposes. The seeds, eaten raw, drove away intestinal worms (Marcin of Urzędów 1595: 337). In the 18th century the role of citrus in the prevention of scurvy was also discovered. In the accounts of the Warsaw Dominican monastery from the 17th - 19th century, lemons are listed among the fruit purchased for sick friars (Szymborski 2009: 88).

Lemons in the 18th century were stored in dry rooms, separated by twigs or paper. Lemon preserves: compotes, jellies, syrups, and candied fruit could be found in larders and medicine cabinets. They were additions to savoury dishes and desserts.

Before the end of the 15th century, only bitter and sour oranges were used culinarily in Europe. Sweet orange did not spread until the early modern period. Remains of sweet orange (*Citrus sinensis*) and mandarin (*Citrus reti- culata*) from the 16th - 1st half of the 17th century were discovered in the Vladislav Hall at Prague Castle in Czech Republic (Beneš *et al.* 2012: 108).

Orange was described in Kluk's *Plant Dictionary* as a tasty fruit which also possesses several therapeutic properties. It was recommended to control rot and fevers. Oranges were used to produce medicinal oils. The flowers were dried to make infusions for drinking (Kluk 1805: 135).

Flowered sprigs of bitter orange (*Citrus aurantium*) decorated a wreath laid on the chest of Princess Eleonora Habsburg (Cat. K5) who was buried in the royal crypt in Prague in 1580 (Beneš *et al.* 2012: 107-108). This is the oldest finding of remains of this species in Europe north of the Alps, at the same time also the oldest example of the use of citrus plants in a funeral ceremony. Eleonora's burial took place in March. However, the branches were most likely chosen due to the lack of access to other living plants during the winter. The properties attributed to the orange, its anti-rot effect and the symbolism alluding to purity, may also have influenced the decision to use it for such a purpose. Orange blossoms are also depicted in the portrait of the deceased son of Christopher Sigismund Pac and Clara de Mailly-Laskaris (Cat. I1, Fig. 38).

Orange fruit and twigs were as well shown in posthumous portraits. An orange fruit (?) rests by the head of Princess Antonia of Württemberg (Cat. H6). At the portrait from around 1644 of Bartholomäus II. Viatis (Cat. H17, Fig. 89), a man in a black robe lies on a bed covered with white linen, with his head on a white cushion. He holds a branch in his right hand and an orange fruit in his left (Neurath-Sippel 2011: 121). A peculiar custom was the production of commemorative miniature coffins with a representation of the deceased's body in wax. A miniature wax figure of Tobias Peller von Schoppershof (Cat. H18) in a coffin from 1650 was shown in an exhibition at the Germanisches Nationalmuseum in Munich.[3] The portrayed man holds an orange fruit placed on a white shawl with the fingers of his left hand (Neurath-Sippel 2011: 123). It should be noted that citrus fruit appeared in modern portraits depicting living persons, as an attribute primarily of women and children.

The most significant reason, why citrus fruit was used in funeral ceremonies, was its aroma which alleviated unpleasant olfactory sensations and prevented infection by inhaling the smell of decay. Lemon was depicted in works of Gothic art north of the Alps in scenes of the last anointing and burial, for instance in a sculpture from Munich with a scene of raising of the body of Lazarus from his tomb (Neurath-Sippel 2011: 127). By its scent and colour, associated with the mythological golden apple, lemon was regarded as a means of overcoming the danger threatening the living in the proximity of death. Citrus was also a symbol of virginity, as it was believed to be unbreakable (Malaguzzi 2009: 247).

The more recent burials also contain edible fruit. Nine fragments of walnut (*Juglans regia* L.) kernel were found in the grave of an adult male buried at Thaldorf. The deceased was dressed in miner's attire (Cat. H144; Hellmund 2006: 266).

Walnut has been cultivated in Europe since Iron Age, while in Poland since early Middle Ages (Lityńska-Zając and Wasylikowa 2005: 147). In the modern period it was considered the least nutritious of all nuts (Marcin of Urzędów 1595: 364). It was eaten especially in winter. On Polish territory, local trade in walnuts is evidenced by written sources from the 15th century for Gdańsk (Badura 2011: 178-179). The walnut half symbolised the Holy Trinity, as it is composed of three parts: the pericarp, the shell and the kernel inside. The nut also symbolises the tomb of Jesus Christ. In the Old Testament, Aaron's rod flourished and bore nuts which was explained as a prefiguration of the incarnation of Christ.

According to Stefan Falimirz, nuts are unhealthy for a hot stomach while for a cold one they can be a beneficial food (Falimirz 1534: Letter 19, Cap. 39). Marcin of Urzędów, following Dioscorides, recorded that nuts were hard to digest, but some medical uses could nevertheless be found for them. He provided several recipes for medicines made from walnut intended for a variety of health problems. Walnut was believed to expel round-

[3] *Die Frucht der Verheissung. Zitrusfrüchte in kunst und kultur.* 19.05-11.09.2011

worms, when mixed with rue it neutralised poisons, and could be a treatment for hair loss, discharge and ulcers. To avoid rabies, after a dog or human (!) bite, an ointment made from walnuts, onions and honey had to be applied to the wound. In the case of abdominal pain, pouring of the ashes of nuts roasted with the shell on the navel was recommended. According to Pliny, nuts help with 'yellow disease', whereas they only do harm when they are stale (Marcin of Urzędów 1595: 365). The pericarp and leaves were used in folk medicine for a number of conditions: gastritis, toothache, scrofulosis, dropsy, whooping cough, wounds, heart or skin diseases (Paluch 1989: 152).

Hazelnuts were also considered unhealthy, although applied for beautification. They were used for hair growth and in an eye-colour chaniging ointment (Marcin of Urzędów 1595: 365-366).

The nuts in grave of a man buried in Thaldorf were probably gathered by rodents. Bird cherry or sour cherry remains and horse chestnut tree fruit (*Aesculus* L.) found in the burial of Antonina Skórzewska (Cat. J17) from the 1st half of the 19th century may also have been deposited in the grave by coincidence. Although in the grave fill, a tin plate and animal bones were also identified, the presence of which is puzzling (Kochman 2012: 35).

Horse chestnut remains have, however, been discovered in some older graves. The fruit was found in Wschowa in the former Evangelical church of the Crib of Jesus Christ church at the burial of Zofia Ujejska Radomicka (Cat. J176) who died in 1628 (Kochman 2012: 45). It was also discovered in the lining of the coffin of Lorenz Christoph Schneider buried in Berlin (Cat. H30). A pouch containing horse chestnuts was found within the grave pit of a child buried in the cemetery at the Dominican monastery in Prenzlau (Cat. H46). Chestnut blossoms were placed on the body of provost Mikołaj Ignacy Łukowski (Cat. J9) buried in 1736 at the Norbertine convent in Strzelno (Sulkowska-Tuszyńska 2010: 419).

The horse chestnut (*Aesculus*) has been cultivated in Europe since the 16th century. In 1557, seeds of unknown origin were first brought from Turkey to Prague (Ravazzi and Caudullo 2016: 60). The tree was planted in Europe mainly for ornamental purposes. The medicinal raw materials extracted from the horse chestnut tree were the flowers, bark and seeds. The bark was used to control parasites of the digestive system (Badura 2011: Table 25). Horse chestnut was very rarely used in folk medicine, except for a tincture from it's fruit or bark, which was applied on aching joints (Paluch 1989: 148).


**Fig. 89**. *Bartholomäus II. Viatis – portrait on a bed of state*, 1644, Nuremberg, Germanisches Nationalmuseum

# 6. A SUMMARY OF THE FUNCTIONS AND MEANINGS OF PLANTS IN FUNERAL CEREMONIES IN EUROPE NORTH OF THE ALPS IN THE MEDIEVAL AND MODERN PERIODS – CONTINUITY OR CHANGE?

Plants at a Christian funeral have been used since its beginnings in Antiquity. The evolution of the customs associated with plants has been directly influenced by the transformations of the funeral ceremony. These changes have resulted in new needs and uses for plants during the preparation of burial. It is recognisable that the evolution of the funeral occurred in parallel with epochs in culture, but the shape of the funeral ceremony in the past depended on a multitude of intertwining factors. The philosophical basis of the epochs influenced the view of nature which determined both the position of man and plants in the universe, and attitudes towards death.

Needs for identification and distinction are among the factors contributing to the elaboration of funerary ceremonies. The funerals of rulers, clergy, elites, urban citizens and the poorest varied throughout the period under study, and the subtle dynamics between social strata were one of the most important drivers for the transformation of the ceremonies.

Funeral customs associated with plants were influenced by intellectual, religious and worldview, demographic, economic, market and industrial transformations that affected not only Europe north of the Alps, but reached across the continent and beyond. Of immense significance were the events that consequently reshaped the world order of the time, such as the establishment of monastic networks, the Crusades, the invention of printing, the religious reformation, the colonisation of foreign continents, and the Industrial Revolution.

Characteristic is the survival throughout the period under study, of factors that influenced the view of nature and man in culture, although their reception has changed over the centuries. These include ancient natural, historical and philosophical works, discovered, reinterpreted and adapted by successive generations. Scripture has been the primary source of knowledge, inspiration and compass determining the principles of Christian burial and the relationship to nature.

The existence of a folk pathway for the development of plant-related customs which, however, is not sufficiently reflected by the official sources, must also be acknowledged. Suggestions of the survival of a pre-Christian tradition of plant-related customs have appeared in the literature, but these are difficult to confirm. The scientific description of nature was revived in Europe in the 13$^{th}$ century under the influence of Aristotle's treatise *De vegetabilis* (Goody 1993: 150-151), but the accumulation of knowledge passed on in oral form probably never subsided.

During the early Middle Ages, a tendency existed to combine Christian and pre-Christian customs syncretistically. Elements of Roman and Greek rituals were incorporated into early Christian ceremonies. The first Christian liturgies included customs directly drawn from ancient Roman traditions. Among the ancient elements of reli-

gious ceremonies practised by the early Christians was the use of plants – crowning of heads, decorating graves with wreaths, offering flower sacrifices, eating feasts on graves. These were condemned by Christian theoreticians who valued spirituality over contemplation of the material world and were alert to practices associated with pre-Christian beliefs. However, some of these customs were revived in the Middle Ages. They were imported into religious practice in a Christianised form. The incorporation of plants into Christian cult was probably a compromise between high culture and folk culture. Compromising to some extent was also the expansion of rituals to include the use of material objects and images in official Christian worship (Goody 1993: 121-123). The Middle Ages were also characterised by the persistence of the ancient belief in transferring power through plants.

Older customs and rituals were Christianised by adding a new meaning to them. The offering of plants on the altar became part of the worship of Mary and Christ. Healing through plants, formerly associated with deities, was replaced by healing through the intercession of saints. This process is reflected in phytonyms referring to Mary, Christ and Christian saints. Former ritual plants also began to be attributed to negative legends, reducing their former role to the activity of Satan. According to Józef Rostafiński, all pre-Christian customs and knowledge of plants among the Slavs were eradicated or distorted (Zemanek 2000: 205--206). The Orthodox Church demonstrated greater tolerance. In Eastern Europe, elements of the Slavic cult of the dead have probably survived to this day.

For burials dating back to the Middle Ages, plants were used primarily as bolsters, linings, to fill pillows, to line the walls of coffins, the boards on which the dead were buried or sarcophagi, and for embalming. The so-called pilgrim's staffs, in the form of a symbolic branch or a rod, must also be mentioned. Their placement in burials began in Scandinavia, probably in Denmark, before the year 1000, and from the mid-11$^{th}$-13$^{th}$ century the custom spread to England (Gilchrist and Sloane 2005b: 173). The youngest burial with a so-called pilgrim's staff in the catalogue dates to the early 16$^{th}$ century.

In Western Europe, the greatest number of burial botanical sources date from the early Middle Ages, but their number is decreasing over time. The trend towards the more frequent use of plants in Christian burials is visible since the late Middle Ages. This result may be related to the increase in burials inside temples, as stable climatic conditions of the inner buildings are more favourable for the preservation of organic materials. It is likely, however, that the influence of factors such as the Church's adoption of the Doctrine of Purgatory, encouraging a certain differentiation in the procedures performed on the body of the deceased, and the stabilisation of the funeral liturgy in the West in the 13$^{th}$ century, which also defined the symbolism of herbs used in Christian burials, were not without significance for the development of plant-related customs in the High and Late Middle Ages.

The greatest number of examples of cushions and linings were recorded in England, France and the Netherlands. This is also where the earliest finds for the period under study were recorded. It is likely that the origin of Christian custom in Europe which has its roots in the Iron Age, can be placed in this area. Pillows were used in coffin burials while linings also occurred in graves without a coffin and board burials. It is likely that in earth graves the open bottom of the pit may have been covered with organic matter.

On Polish territory, the presence of cushions and possible linings (?) has been determined in the graves of clergy. It is likely that cushions, head rests or linings were more common than the number of archaeological finds suggest. On Polish lands, remains of plant furnishings have been found in graves dating to the early Middle Ages (Kurasiński *et al.* 2018). Most likely, when deposited in the ground, plant fragments were enclosed in vessels, pouches or sacks, forming part of the deceased's clothing. They were not, however, forming cushions or linings, so it can be assumed that the lining of graves with plants appeared in this part of Europe together with Christian funerary customs.

The use of objects and grave furnishings associated with sleep in Western and Northern Europe is evident in Iron Age graves. During the early Middle Ages in Western Europe, pillows were found in the burials of elite representatives from Germanic tribes. Pillows with herbs and linings have been discovered in Merovingian graves from the 5$^{th}$ century (Thompson 2012: 110). A cushion or decoration

of the head area was present in the burial of Saint Tulle at Saint-André de Villeneuve-lès-Avignon (Corbineau 2014: 390). Cushions or head rests occurred in Roman burials from the 1st-4th centuries. In Britain, the appearance of stone head supports is associated with Roman burial customs, but may also be an indication of Celtic ritual. Pillows have been discovered in Anglo-Saxon burials from the 7th-8th centuries. They were used in funerary rituals by the Vikings from the late Iron Age onwards (Panagiotakopulu *et al.* 2018: 11).

In the 11th century in the Romanesque art of Western Europe, pillows began to be depicted under the heads of the deceased on tombstones. During the Middle Ages, graves featured a variety of forms of head supports made from a range of raw materials. In Britain, the Netherlands and France, grave pits were sometimes anthropomorphic in shape. It is presumed that the part of the grave pit around the head was shaped to stabilise it. The same function served piling up a mound or building a support around the skull. The permanent positioning of the head with the face towards the East was motivated by ideas concerning the Judgement Day when the light of the returning Christ is supposed to be visible first from this world direction.

The arrival of pillows and grave linings is undoubtedly linked to the custom of displaying the corpse before burial. It was practised already by the ancient Romans. The description of the funeral of Emperor Constantine the Great, by Eusebius of Caesarea, became a model for the funeral ceremonies of rulers in the Middle Ages. The funeral of Emperor Constantine, who only converted on his deathbed, was a combination of pre-Christian and Christian rites. After the secular part, during which the emperor's image was displayed in a golden sarcophagus, the corpse was handed over to the Christian clergy (Chrościcki 1974: 31-33). The custom of displaying the corpse before the funeral and keeping vigil at it was later adopted in the monastic funeral ritual. It should be emphasised, however, that keeping vigil at the corpse was also practised by many European nations before the adoption of Christianity and by the Jews.

In the monasteries, the rite of mortification of the body during the agony by laying on the floor, on straw, hay, ashes, a bed of straw mixed with ashes, on a board, a mat or laying the head on a stone developed.. Penance demonstrations were legitimised by Pope Innocent I in the 5th century, but are probably older, as evidenced by descriptions of the deaths of the earliest Christian saints (Deforce *et al.* 2015: 602). Mortification of the body before death was imitated by European rulers from around the 12th century onwards.

Hay or straw was useful for washing the deceased which was performed on the floor, sometimes covered with organic mat. Absorbent padding was used as a base for the corpse and also for its drying. The bodies of the deceased after cosmetic procedures were placed on absorbent lining before being wrapped in a shroud made of usually white cloth which would easily become stained. Medieval and modern artistic representations show the deceased resting on bundles of straw or mats on the floor or inside the bed. The organic filling of the cushions or mattresses gave them volume and provided adequate support for the inert body, preventing the unpleasant sight associated with the skull tilting and opening of the mouth. Straw mats were also rolled up at one end to form a bolster, supporting the head. It is likely that the bolsters, mats, straw, hay or grass used were subsequently placed in the graves.

It appears that, initially, the use of cushions and linings would have been most appropriate during the funerals of people whose bodies were displayed to the public. The dying and the medieval funeral were events that were participated collectively. Roberta Gilchrist has drawn attention to church burials in England in which the head of the deceased rested on a stone decorated with engravings at the bottom of the burial pit. The decoration made on the stone suggests that it may have been intended for viewing by those attending the ceremony (Gilchrist and Sloane 2005b: 125). It is also possible that the stone bolsters were covered with, for example, fabric or some other unpreserved substance of organic origin, thus creating the illusion of a cushion. It can therefore be assumed that, despite the customary hiding of corpses from the view of mourners (as Philippe Ariès has emphasised), props for the presentation of bodies were included in the average medieval funeral ceremony.

In Gothic art, on the other hand, the depiction of the deceased in an upright position with their heads on a pillow, became widespread. Assuming a high level of realism, especially of late medieval artistic representations, it can be concluded that the use of pillows or bolsters at this time had already entered the canon of elite funeral ceremony furnishings.

The occurrence of medicinal cultivated herbs in the composition of coffin linings is most likely to be linked to the conservation of corpses. Embalming was practised in ancient Rome and Greece. In the early Middle Ages, in Western Europe, cosmetic preservation treatments were performed on the bodies of the deceased from the elite. From the 13th century onwards, embalming of the deceased combined with the removal of the viscera and filling the empty body cavities with dry organic matter became increasingly common in Western Europe.

The beginnings of the use of grave linings and cushions made from aromatic plants at Christian funerals appear to be linked to the spread of embalming procedures. Filling the inside of bodies, garments, shrouds and coffins with herbs was part of a range of practices associated with the various techniques of corpse embalming. Dry plant matter was helpful in the process itself. It was used to fill the disembowelled body, to wipe or dry it, to absorb embalming fluids and fluids leaking from within as a result of decomposition. It could then be placed with the deceased in the coffin. Following the embalming procedure, the liquid mixtures used for preservation continued to drip from the corpse, thus use of absorbent filling materials in coffins.

Unfortunately, few details of the composition of medieval herbaceous linings and cushions are available due to the limited possibilities of preservation of organic remains in the ground, the manner in which past archaeological excavations were conducted and the accompanying analyses were applied. Of the plants identified in medieval burials, the majority are locally occurring species. The herbs used for burial linings are mainly among those that are strongly fragrant and have astringent, antibacterial and preservative properties. The use of aromatic plants in the linings may indicate their connection with the embalming procedure itself. They may have been an additional factor contributing to the preservation of the corpse.

Medieval embalming is assumed to have been adopted from Antiquity; unfortunately, few records on the process from the early Middle Ages have survived. Among the described botanical finds from medieval graves, the locally occurring species dominate. In the late medieval and modern periods, embalming was performed using locally grown plants of Southern European origin and imported spices and resins. The raw materials used for embalming usually fell into the luxury category being expensive and exotic. Although, in the absence of hard-to-obtain ingredients, more accessible, native equivalents were frequently used. Variations in the recipe may also have resulted from incorrect plant identification.

There are indications of the existence of Christian herbal symbolism in funeral ceremonies from the 13th century, provided by Durandus in his description of the Latin church liturgy. This may well be an attempt to adapt customs practised in the Roman part of Europe earlier, especially as the cypress and laurel described by Durandus belong to Roman funerary plants. The cultivation of Mediterranean herbs and medicinal plants arrived in Northern Europe in the early Middle Ages along with monks who planted them in gardens established within monastic sites. In the late Middle Ages, evergreen plants were an important part of the setting of church festivals (Goody 1993: 153-154).

The supra practical role of grave linings made from plants in medieval devotion is supported by stories of miracles performed by the saints. These include the supernatural transformation of the linings on which they slept during their lifetime or died (for example turning bedding into violets by St Fina of San Gimignano, or healing with straw from the bedding by St Martin of Tours).

In the case of modern grave linings and pillows, with a much more extensive source base than for the Middle Ages, the tendency to use aromatic plants and those with preservative, wound astringent, disinfectant and insect repelling properties is clearly recognisable. The use of modern herbal grave linings and pillows can undoubtedly be linked to body preservation procedures.

The most common raw materials used in the Middle Ages to line graves and fill cushions were hay or grass. Equally popular may have been straw mats which appear in

iconographic representations and in written sources from the 13th-16th century, mainly in France and the Netherlands. Cushions and paddings made of hay or grass were present in coffins from all over the analysed area until the 19th century (i.e., up to the upper chronological limit of the study). Numerous iconographic representations of the bodies of the deceased laid out on mats, straw or hay, on the floor or inside the bed, dating from the 15th-17th century, have also survived. Hay, straw or grass provided a pad on which corpses could be laid during hygienic and ritual procedures in the Middle Ages. In the early Middle Ages, monks mortified themselves before death by laying on the floor on a mat or straw with ashes. A mat served sometimes as a substitute for a textile shroud which was expensive to purchase. Presumably, straw and hay were regarded customarily as materials appropriate for an unsophisticated, modest and cheap funeral as early as the Middle Ages.

In the late medieval and modern periods, hay and straw remained symbols of humility and repentance. The modern emblems which consisted of graphics with a representation of a bale of hay paired with a motto from the Scripture (Sir 14:18, Is 40:6), can be understood as expressions of this concept. Both the images, the mottoes themselves, and the aforementioned Bible quotations, were placed on coffins, sarcophagi and tombstones.

The custom of laying the dying person on straw or dried parts of other plants was known in rural areas throughout Europe until the 20th century. It was believed that plants were able to facilitate and hasten death. The straw, and all objects in contact with the corpse, were then placed in the graves or destroyed.

The long presence of grave linings and pillows filled with hay in European funerary customs may result from it being a popular raw material for filling of bedding. Sleeping on straw mattresses continued in post-war Poland in the second half of the 20th century. Hay or grass was also used to fill upholstered furniture. Perhaps the deceased's personal bedding, or that on which his body was displayed before burial, could be used during the funeral.

The next most common raw materials for filling cushions and coffins since the Middle Ages were wood shavings, sawdust or waste wood. Shavings, sawdust and wood waste in grave cushions, linings and mattresses remained common until the 20th century. Linings made of shavings, hay or straw were not usually intended to be seen by those attending the funeral. The use of shavings as a lining at the bottom of the coffin without textile cover occurred very rare.

Like straw, hay and other dry organic matter, served as absorbent padding and support for the body. They were also used to fill the inside of the coffin after the body had been placed in it. Shavings or sawdust may have acted as an absorbent, sealing the bottom and preventing the contents of the coffins from shifting during transport. Their possible use as a means of preserving and aromatising corpses may be evidenced by the frequent use of wood shavings in combination with aromatic hop cones containing bactericidal and fungicidal substances. However, it has been observed that the presence of any lining made from organic materials can, under specific conditions, accelerate decomposition of the corpse, and also in the case of interments, promote skeletal decomposition.

The folk beliefs and convictions in the magical powers of trees, including their influence on the dead, have to some extent shaped local preferences in the past regarding, for example, the choice of raw materials for the coffins, other grave furnishings and house or pathway decorations (branches), or the whips used by hearse drivers.

In the 19th-20th century in Europe north of the Alps, there was a widespread conviction that the shavings, sawdust and waste produced during coffin manufacture should be placed with the deceased. For a more precise determination of the function of wood shavings in burials, species identification analyses of the wood and determination of whether it was obtained from deciduous or coniferous trees could prove valuable. The type of wood may be consistent with that used to produce the coffin. Different types of wood may have had a varying impact on the state of preservation of the remains.

Cushions and linings in burials in the early modern period became widespread with the increasing use of coffins. The vast majority of the archaeological sources included in the study come from modern crypts. Coffins were necessary for burials in a crypt or under the floor of a temple due to hygienic reasons. Plants were placed in them to help absorb moisture and mask odour. Covering the inside of

coffins placed in crypts with sawdust, twigs, bark or conifer leaves was supposed to create a sort of air filter. Pillows were primarily intended to stabilise the body of the deceased and aid its dignified presentation in the coffin. However, a type of scented cushion which was filled with aromatic plants, can also be distinguished.

In the modern period, only bouquets, flowers, wreaths, garlands or grave crowns were intended for the eyes of the participants in the ceremony. Plants contained in cushions, linings and mattresses should rather be considered as grave furnishing element that was to remain hidden under pillowcases or fabrics which often incorporated their own decorative floral motifs. In the case of the plants contained in pillows and linings, more important than the symbolism is their relevance to the beliefs, economy, cosmetics and, above all, medicine and botany of the time which were syncretistically combined with magic and astrology, and relied on knowledge accumulated over the centuries from a wide variety of sources. Insights into these aspects are provided by modern herbaria and, in part, by traditional herbalism, the principles of which only began to be systematically archived from the 19th century onwards. Magical, economic and medicinal plants occurred more frequently in the linings than in the other types of the grave furnishings.

Following the rules of Hippocratic humoral medicine, the individual herbs described in herbaria were characterised by four qualities: hot, cold, dry and moist. The properties of the plants could reveal varying degrees (up to three degrees). They influenced the levels of the four humours inside human body: blood, phlegm, yellow and black bile. Health was to be guaranteed by maintaining the harmony of the humours (Geller 2015: 67). Worth mentioning is the fact that for grave plants were being chosen mainly those classified in herbaria as being characterised by their ability to heat and dry out. 'Hot' and 'dry' herbs usually possessed physical signs of vitality – a strong aroma, green colour, and often belonged to evergreens. Also, the scents emitted by plants were attributed with the ability to warm, cool, dry or moisten, for instance the aroma of ornamental flowers was cool while that of lemons or cloves was hot and dehydrating.

The production of herbal linings or cushions was not regulated by church rules. The subject was neither addressed in the Catholic liturgy nor in the funeral law regulations issued in Protestant cities. The written sources do not provide information on who was in charge of making coffin linings. It is likely that the people responsible for making them were ones who carried out the washing of the deceased or prepared the coffin.

It is possible that cushions and linings may have been created under the guidance of medically trained people, particularly in the case of funerals of individuals whose bodies were embalmed and then encased in coffins specially adapted for storage in crypts. However, it has not been possible to identify early modern medical formulas in the composition of grave linings which may pose a future perspective of further research on this topic.

It is not possible to reconstruct with certainty the motives that led non-professionals in the choice of herbs used in linings and pillows, as the sphere of folk herbalism has not been sufficiently documented in the sources and was probably characterised by considerable regional variation. On the other hand, it is very likely that, as in the non-professional medicine of the 18th-19th centuries in the lands of Poland, the resource of information on plants used during funerals was partly drawn from printed herbaria. However, it seems that uncodified natural knowledge, tradition and experience played the leading role.

The 'plague ordinances' had a significant impact on the spread of knowledge of plague prevention. The organised actions against epidemics undertaken by town councils after the catastrophic experience of the bubonic plague pandemic in Europe in the 14th century included, among other things, informing the public about the course, causes and ways of combating infectious diseases. The information provided was based on the humoral medicine. It was written down or passed on orally when an emergency arose. In the modern period, informative calendars and other leaflet prints appeared. However, it is difficult to determine the impact of information campaigns on the poorer strata of society and the real extent of the activity of doctors employed by town councils to treat the less affluent urban population. People belonging to the wealthier strata of society had access to private or municipal doctors,

from whom they could obtain information on hygiene and epidemic safety conditions (Płonka-Syroka 2020: 82-84).

In the modern period, mainly cultivated plants were used to fill pillows, mattresses and coffin bottoms. These included various cereals, straw, common hop, ornamental and edible plants along with crop weeds. This group is dominated by herbs of Mediterranean origin which in Europe north of the Alps are found primarily in cultivated form. In the fillings of cushions, mattresses and linings, plants collected from the wild were more often placed intentionally than in the rest of the grave furnishings. A sizable number of finds are linings formed as a result of a single harvest, from plants growing together in natural conditions, probably accumulated from one or more specific, co-occurring plant communities preferring specific types of natural sites (meadows, forest edge, scrub, crops, ruderal areas). Probably the most common, however, was the use of in-house reserves of economic and medicinal plants.

Compared to the rest of the grave furnishings, the composition of the fillings of cushions, linings and mattresses is characterised by the greatest variation in terms of species. However, there is a high proportion of plsnts incorporated accidentally, e.g., harvested together with grass or moss. The use of domestic and household waste in bedding is also highly likely. In particular, this may apply to linings prepared in winter, when plants available at home for other purposes – edible, medicinal or industrial, were used. From the 19th-20th century, there are accounts on coffins being lined with, for example, wood shavings from cleaning workshops.

In the case of grave linings, when analysing the plant composition of a burial, an individual approach is necessary. Regarding the aristocracy, the reconstruction of the supply of private apothecaries and gardens should be included in the analysis.

On the basis of the collected source materials, plant species that were used in burials in a similar way throughout Europe north of the Alps in the modern period, were identified. The most common plants chosen for this purpose include the common hop (*Humulus lupulus*) and aromatic plants from the *Labiateae* family, the umbelliferae (*Apiaceae*) and compound (*Asteraceae*). The results are consistent with the previous findings from the analysis of written sources on embalming of corpses in Europe in the medieval and modern periods (Corbineau and Georges-Zimmermann 2015: 165; Corbineau *et al.* 2018: 152).

The results of botanical analyses in the literature are presented in different ways which makes them difficult to compare. While archaeological findings from several sites have been presented in fine detail, in the majority of publications the subject of plants in burials is communicated with a lesser precision. Anna Drążkowska published results of research conducted in the Lublin Upland and the former Borderlands of the Republic of Poland. Those areas were screened to an advanced degree in terms of modern grave finds. The catalogue at the end of this book therefore includes numerous plants associated with the flora of the region. This has resulted in an over-representation of some of the wild species occurring naturally in the area, which may lead to the illusory impression of their greater importance in European modern burial ceremonies.

There is a high possibility that plants from garlands and bouquets blessed during church festivals may have been found in the modern grave linings and pillows. Later accounts on rural medicine in the lands of Poland reveal that blessed plants were kept in homes as amulets or source of medicinal raw materials, and they were sometimes placed in coffins (Köhler 2017: 44). This possibility is also suggested by the likely time of collecting of the plants which can be identified, in the case of several cushions resulting from a single harvest, as late summer (Święta-Musznicka 2012: 209). It is possible that plants ordained on 15th of August at Feast of Our Lady of the Herbs or Corpus Christi and the Precious Blood and during its octave, were used to create them.

Among the plants most commonly used for making linings, mattresses and pillows in Europe north of the Alps in the modern period was common hop (*Humulus lupulus*, Fig. 90). It was found in burials dating back to the first half of the 16th century. Nowadays, the plant's bactericidal and fungicidal properties have been proven. The use of hop is probably connected to the observed sedative and sleeping effects of the lupulin produced in its cones. In the modern period it was believed that, according to the view derived from Antiquity, herbs placed in bedding could influence

people therapeutically and induce sleep. In addition to hop, other plants demonstrating soothing and calming effect were used in the preparation of linings, coffins and pillows, such as lemon balm, lavender, valerian or, regarded as a tranquilliser – dill.


**Fig. 90.** Common hop (*Humulus lupulus*)

The hops contained in the burials may have come from harvests intended for beer production. This suggests the use of only female specimens, and the frequent co-occurrence of hops and cereal grains in burials.

Of particular note is the use of poisonous plants, or plants considered to be harmful, in the linings and pillows. Toxic herbs probably served to disinfect coffins (in the contemporary sense) and to repel or kill animals that preyed on the corpse. Some of the finds would have to be linked to treatments of protective magic in defence against the deceased and protection of their souls after death.

Performing worship in temples, which were becoming also burial sites, was extremely difficult, especially during the warm months of the year. The odour from the crypts could provoke nausea and vomiting. Masses were then celebrated with the doors open, frequently outside the churches (Kallio-Seppä and Tranberg 2020: 9). The decomposition of organic matter was believed to generate miasma, the inhalation of which posed a risk of disease. Smells, according to the state of scientific knowledge at the time, were considered to be clouds of air carrying particles of a fragrant object. The miasma was thought to be a vapour of moisture rising with particles of rotting flesh, but also of wet earth or polluted water. They penetrated through the skin and via the nose reached the brain leading to infection (Kallio-Seppä and Tranberg 2020: 3). The strong scent and drying properties of the plants were believed to inhibit the release of miasma from the corpse.

Edible fruit and cereals are rarely recorded in medieval and modern burials. The presence of food in graves in Western Europe is explained as a consequence of pre-Christian burial practices. Early Christianity also adapted Roman customs of feasting on graves, but these were soon officially excluded from religious practice due to associations with pre-Christian forms of burial and worship of the dead. Also on Polish lands, early medieval finds are usually understood as a continuation or adaptation of elements of pre-Christian funerary rituals to the rules of Christian burial.

In the Middle Ages throughout Western, Central and Eastern Europe, communion of the dead was practised, which involved the laying of bread/grain, wine or vasa sacra − chalice and paten (or copies thereof), in the tombs. Communion of the dead would survive in France until the 18th century.

In the modern period, the grain which dies in order to be reborn again, was an important motif of funerary symbolism. The placement of grains in the tomb can be linked to the hope of a resurrection or Eucharistic symbolism. It is also likely that bouquets or wreaths ordained at church ceremonies containing agricultural produce, including cereal ears, were used to prepare coffin linings and decorations. Grains and parts of ears in burials may have found their way by chance together with the straw used to line

coffins and burial pits, along with other household waste or as a result of post-depositional processes, for instance animal activity.

Modern finds of cereals and edible plants in burials from Polish lands do not differ significantly from Western and Northern European examples. One exception is the unique use of millet in the form of a dough or lump placed in the stocking in the burial of Bishop Walenty Wężyk in the Archcathedral in Przemyśl (Cat. J260). According to ethnographic accounts, anti-vampiric treatments involved the sprinkling of cereal grains or other crops into the coffins in order to focus the attention of the dead and thus stop them from emerging from the burial site. Evidence of this kind of anti-vampiric practices was perhaps recorded in the Holy Trinity Basilica in Strzelno (Cat. J8; Święta-Musznicka 2021: 209).

In rural areas of Central and Eastern Europe, food and drinks were deposited in coffins until the 20th century, which would have been a remnant of former customs prior to the adoption of Christianity. Grain and straw were also props of agrarian annual rituals performed at the turn of the seasons, including Easter and Christmas, which served a protective purpose, ensuring proper vegetation and revival. In popular culture, the apotropaic function of bread and all the equipment associated with its baking is clearly evident.

It is not possible to determine when single twigs and flowers began to be placed in burials, usually due to the impossibility of specifying whether finds of this type formed a stand-alone decoration in a burial or were part of larger constructions. This way of using plants began to be shown in sepulchral art from the late 16th century onwards. On Silesian tomb plates, people holding a single flower in their hands began to be depicted at the very end of the 16th century. The greatest number of images of this kind date from between the beginning and end of the first quarter of the 17th century.

Artificial flowers were not recorded in burials from the study area dating before the late 15th-early 16th century. It is difficult to determine whether artificial flowers were valued more than living flowers in the modern period. They were certainly more durable and therefore worked well for prolonged funeral ceremonies and as a funeral memento that could be preserved for years. Artificial flowers would replace natural plants in the winter months, but wealthy people could make use of the resources of private conservatories and potted crops. Dried plants were probably also used to weave grave wreaths.

Artificial flowers emitted no fragrance which was their major disadvantage. For this reason, wreaths and bouquets made of artificial flowers were supplemented with organic parts of natural aromatic plants. Flowers have been the primary source of fragrance in cosmetics. In the modern period, they were considered by Protestants to be the only acceptable aroma, as opposed to genuine perfume, which was condemned as being extravagant. In the funeral law regulations of Hanseatic cities, the use of only natural flowers at the funerals of young girls were requested, due to concerns of immodest elaborate decorations. Wreaths, crowns and grave bouquets composed of artificial flowers shaped from brass wire evoked gold. They were supposed to give the impression of costly wares. Much rarer are the finds of wreaths/crowns decorated with noble metals, silk and natural pearls.

On the other hand, natural cultivated flowers remained fresh for a very short time and were impossible to obtain for most of the year, allowing some of them to be considered luxury wares. Like exotic spices, investment in which was considered wasteful by Protestants, cultivated flowers in the modern period represented a perishable good. This is probably one of the reasons why many species of ornamental flowers bearing symbolic meaning related to death, mourning and resurrection, most often depicted in funerary art, such as roses, tulips, lilies, anemones and forget-me-nots, were not discovered in burials. When it was not possible to acquire them at the time of the funeral and to keep them in good condition for a long time, artificial flowers were used, most often, however, not exactly mimicking any of the species existing in nature. It seems that drying tulips or roses in the modern period could hardly have been carried out with satisfying results, as they lost the intensity of their most essential characteristics – colour and fragrance.

Aroma appears to be one of the most important determinants in the selection of plants for funeral decorations. Up until the 16th century, perfumes made from damask

roses, grown in the Middle East, were imported to Europe. In the modern period, adaptation of this rose species to climatic conditions of Europe north of the Alps was achieved. Items of daily use and clothing that were perfumed with the scent of roses, became popular in the 16th-17th centuries. These were mainly gloves (including gloves that were part of mourning attire), but also fabrics, buttons and artificial flowers (Dugan 2011: 49-52). The use of perfumed flowers and fabrics to decorate modern coffins cannot be ruled out. The placement of fragrance containers in coffins was mentioned by Edmund Kizik (Kizik 2001: 201). The discovery of a pomander fragment in one of the early modern burials at Płonków, should also be indicated (Cat. J5, Grupa *et al.* 2015b: 35).

Based on the collected evidence, it can be concluded that bouquets began to be placed in burials in the early modern period. Cut flowers were probably not used on their own until the end of the Middle Ages. Before that, they were only available in the form of flower petals, wreaths or garlands. In the late Middle Ages, floral arrangements were used as decorations at family celebrations, festivals and feasts (Goody 1993: 157-160). At the end of the 15th century, flowers in vases appeared in Northern European paintings, above all in scenes of the Annunciation as a realistically depicted attribute of the archangel Gabriel or a symbol of Mary's purity.

Bouquets developed as personal decoration in the 15th century. They were also carried for health reasons, as the aroma of the plants counteracted the foul air. It was not until the 16th century that bouquets came into general use as a decoration for living spaces, as indicated by the development of domestic furnishings dedicated to their presentation (Goody 1993: 187). A significant development of floral decorations in the private domain occurred in relation to the Reformation. Protestants abandoned the customs of decorating images of saints, the use of flowers in worship and in religious art. While flowers were expelled from churches, floral still lifes were created in the Netherlands and northern Germany for private art collections (Goody 1993: 186). Bourgeois patronage and the demand for works of art for individual purposes developed.

Bouquets in the early modern period were placed in the folded hands of the deceased. They were also put on grave linens or attached to clothing on the body of the deceased. They were sometimes located on the lid of the coffin. Structurally, modern bouquets resemble grave wreaths which might make them difficult to distinguish from other coffin decorations inside the tomb. Bouquets, such as the wreaths, were created from natural plants combined with artificial flowers. Examples made exclusively from natural plants are found much less frequently. Special holders were used, or bouquets were only tied with a ribbon or a cord.

Bouquets composed of medicinal and aromatic plants had primarily decorative, but also hygienic and apotropaic functions. Similar to wreaths, bouquets were placed in the coffins of young people, brides and bachelors. They were produced from plants symbolically linked to the nuptials. Analogous to the grave wreaths, in the bouquets mainly aromatic evergreen plants were employed, such as boxwood, rosemary, common oregano, hyssop, myrtle, orange tree, as well as spices: cloves, juniper berries, nutmeg. In coffins, bundles of plants are also found, scattered irregularly over the corpses. This kind of bunches of herbs were unlikely to have served as decorations.

Representations of bouquets in Silesian grave art are most common for the first half of the 17th century. They were depicted in the hands of the deceased. Bouquets in vases appeared on tombstones in the second half of the 17th century.

The second half of the century is characterised by a general decline in the number of tomb panels with representations of the standing deceased, adorned with flowers, bouquets, wreaths or garlands. Nevertheless, they continued to occur throughout the whole century. In the late 17th and early 18th centuries, depictions of the deceased on tombstones and epitaphs were characterised by an elaborate narrative, with flowers appearing not only as personal attributes but also as staffage, background symbols, borders and still lifes.

In the 17th century, bouquets of flowers were depicted in *vanitas* still lifes. The impermanence of flowers was associated with the shortness of human life. In the modern period, the bouquet motif appeared on coffins, mourning prints, epitaphs and also posthumous portraits.

Medieval written and archaeological sources sporadically feature wreaths and branches used at funerals. These

references are extremely rare and there are also no known iconographic representations that show the use of floral decorations at funerals at this time. Certainly, the choice of evergreen plants for this purpose is characteristic. In ancient Rome, evergreen plants were dedicated to Pluto and used in rituals to honour the dead. In the Middle Ages, evergreens were known primarily among the elite. Portraits have survived showing young men and maidens with green wreaths of Mediterranean evergreen herbs on their heads. In Europe north of the Alps, procedures for embalming the bodies of the dead using plants of foreign origin were in use among the wealthiest strata of society at the end of the Middle Ages and the beginning of the modern period. The plants used to produce the wreaths used at funerals and the plants planted near graves at this time also belonged to evergreen species.

It seems that the development of the bouquet and grave wreath in forms such as those described in this study should be placed only at the end of the 15th century and the beginning of the early modern period. However, the continuation of the concept itself of the use of the wreath during burial from the Middle Ages onwards is not excluded. This may be indicated by the preference for evergreen plant species in modern wreaths as in the Middle Ages, although the similarity may be a result of drawing on antique models in both eras. Wreaths of artificial flowers and decorations made of inorganic and organic parts, probably came into use at the beginning of the modern period.

The oldest grave wreaths, similar in form and construction to modern ones, have been found in the Netherlands. They date from the 15th century. Wreaths of natural plants and crowns began to be depicted on tombstones and epitaphs in the second half of the 16th century. In the St James cemetery in Toruń, the oldest grave wreath were recorded in layers dated to the half of the 16th century (Sulkowska-Tuszyńska 2022: 115). Most depictions for Central Europe date between the 1670s and the end of the 1730s. The number of depictions dominates the number of archaeological finds from to the same period. In the second half of the 17th century, the popularity of images of the dead crowned by angels increased. The widespread adoption of the custom of placing of wreaths and crowns in graves in Europe from around the mid-17th century is evidenced by the numerous archaeological finds and commemorative objects preserved in museum collections.

Grave wreaths in Germany are found mainly in areas where Protestant denominations prevailed, although they were also used in Catholic ceremonies. In the 17th century, the use of wreaths at funerals were reintroduced in England, after a brief period of decline for religious reasons (Goody 1993: 202-204). The maiden wreaths or crowns are preserved in several churches, as the funeral mementoes (Morris 2003: 333-335). The appearance of grave wreaths in England is most likely linked to German or Dutch influence. The term, by which they were referred to ('crants', 'cransties'), can attest to this claim (Morris 2003: 333). Ethnographic accounts indicate that in the 19th century grave wreaths were known throughout Europe, mainly among the lowest strata of society, and beyond – in Siberia and the Americas. Grave wreaths were used longest in Germany, until about the middle of the 20th century.

The origins of the custom have not been explained. The most likely hypothesis is that it refers to an ancient tradition or is effect of a continuation and modification of a medieval one. Wreaths were used at funerals and ceremonies in honour of the dead in Antiquity. In ancient Rome, people who obtained a wreath during their lifetime for merit in war, artistic activity or religious service, were entitled to be buried with it on their head. The earliest mention of wreaths being placed on the heads of the newly baptised dates back to the 7th century in Alexandria (Łuczaj 2012: 229). The Greek Church also adopted the custom of using wedding wreaths. In the Middle Ages, wreaths were incorporated into the tradition of celebrating Corpus Christi. The feast was officially established in 1264 by Pope Urban IV. In the 14th century, during the feast processions towns and participants were decorated with floral wreaths and petals. In Germany, the day acquired the name *Kranzeltag* (in German 'Wreath Day'; Łuczaj 2012: 229).

The oldest documented burial of a person wearing a wreath of plants on the head is believed that of Werner von Oberwesel which took place in the 13th century (Segschneider 1976: 16). However, the wreath, in which Werner was buried, should rather be understood as a symbol of his martyrdom. The hypothesis of the origin of secular wreaths from church ceremonies in the Middle Ages is

insufficiently supported. It is more likely that they initially appeared among lay people as a remembrance of ancient flower offerings on altars, before being admitted to official cult. In Western European culture, a revival of wreaths uses in secular contexts occurred in the 12th century among the elite, as a result of a return to the ancient tradition. In the 13th century, a floral wreath was depicted on the tombstone of the minnesinger Heinrich von Meissen in Mainz Cathedral, as a reference to the ancient custom of wreathing poets (Lauffer 1916: 230).

In the Middle Ages, wreaths were worn at religious and secular ceremonies, festivals, dances, and homes were adorned with them. They were used as personal ornaments, parts of the attire attributed to maidens and bachelors, or love gifts for engagements or weddings. From the 12th century onwards, they became a symbol of servitude – a wreath could be given both when paying homage to a vassal and to a lady of the heart. They were also used to decorate winners of competitions, tournaments and poets.

Metal diadems which may have been decorated with sprigs of natural plants, have been discovered in medieval layers in urban areas. In Poland, head ornaments known as headbands or diadems, decorated with metal appliqués, were also found in female burials from the 12th-14th century. In Germany, the type of wreath worn on the bride's head during the wedding ceremony developed considerably earlier. Wedding wreaths were primarily made of rosemary and later of myrtle. Only the maiden was allowed to wear a headband or wreath. The medieval tradition of differentiating between married women and maidens by means of dress and headdress undoubtedly influenced the equating of the wreath symbolic meaning with the virgin status symbol.

In late medieval testaments occasional references are made to the use of floral wreaths at funerals in the Netherlands. These texts suggest the existence of customs of decorating the coffin with wreaths and wearing of wreaths on the heads at the funeral. In particular, the wills mention evergreen species – periwinkle, ivy, laurel, marjoram, but also roses, which may have been symbolically associated with mourning in the Middle Ages (Corbineau 2014: 80). However, there are not known iconographic representations depicting the use of wreaths or flowers at funerals in late medieval Europe. Medieval wreaths cannot be attributed to the deceased of a particular gender or age.

In the early modern period, wreaths were still in use as part of the costume. Specialised wreath makers operated in the cities. With the development of Protestant piety in Western Europe, the custom of wearing wreaths began to be criticised, as they were associated with Catholic ceremonies (Łuczaj 2012: 230). There was also a reaction against folk celebrations, being qualified as a manifestation of 'paganism'. Secular wreaths became a sign of extravagance, lack of decency, and were associated with folk divination or games, during which they were most often worn.

One hypothesis of grave wreaths development in the early modern period put forward by Gerhard Seib, is that they originate from folk piety (Seib 1979: 114). This is a highly probable path of grave wreaths formation, but one that is difficult (impossible?) to be documented through archaeological finds. The custom of crowning the heads of the dead became widespread at the end of the 16th-17th centuries, probably as a result of religious changes and a reaction to the Protestants' rejection of the need to pray for the dead.

The Catholic *Rituale Romanum* published in 1614 stated that the coffins of baptised children should be decorated with flowers. It was customary in many regions of Germany that a grave garland for a deceased child was purchased by the godparents, as confirmed by bishops' orders from the 16th century. The law regulations placed great importance on baptised children being buried with a wreath. Attempts to regulate this issue legally indicate that the custom of placing wreaths on the heads of deceased children may have been practised on a significant scale at the time. Up to that point they probably belonged to the unofficial sphere of folk piety. Until as late as the 15th century, the burial of unbaptised children in cemeteries was not permitted. In the modern period still, despite the lifting of these restrictions in Germany, their burial may have differed from the average. It is likely that children were buried with wreaths as a headdress attesting to their baptism, as an equivalent of the sacrament itself.

There is also a clear link between the grave wreath and the headdress worn by the bride on her wedding day. Wreaths are mainly found in the graves of young people

and children. Funeral ceremonies for people who did not receive the sacrament of marriage in the modern period included references to the wedding. This is also indicated by the clothing of the deceased resembling wedding garments or emphasising the innocence of the deceased child, and the use of grave bouquets, as can be seen in portraits. Recurrent references to the *Song of Songs* are also noticeable in sepulchral art. Marrying the soul of the deceased to Christ during a funeral served a protective function. The tradition of nuptials at a funeral (German *Totenhochzeit*) continued in European culture until about the middle of the 20th century.

On the other hand, the origin of wreaths and grave crowns could perhaps be placed in the ceremonies of rulers and nobles, which were enriched with references to ancient ceremonies and triumphs. Elite funerals have been the subject of imitation by the lower strata since the Middle Ages.

Wreaths were made from plants with similar properties and external characteristics: small-leaved, evergreen, strongly aromatic, mostly of Mediterranean origin. Leaves, fruit, dried seed bags and seeds from medicinal and utility plants were used to decorate them, and to create imitations of flowers or jewels. The base of the wreath could be formed by hoops made of flexible branches of natural plants, wood or bark. Natural flowers were rarely used to create grave wreaths (or crowns). Artificial flowers were instead connected with herbaceous parts of natural plants. It was probably the green colour and the intense fragrance that influenced the choice of plants for the construction of wreaths. One of their more important functions was to mask the unpleasant smell of decay. The same species, or plants with similar characteristics, were used to create other forms of decorations to be placed inside and on the coffins. They were also used to fill coffin cushions and to embalm the bodies.

The plants used to make garlands were formerly classified as warming and drying. Some were considered to repel parasites, heal inflammations, skin infections and even to ward off snakes and neutralise venoms. The green colour associated with vitality and longevity meant that they were attributed an apotropaic role. Among the plants used in garlands, evergreen species predominate, which can symbolise a prematurely deceased person or the hope of Salvation and eternal life. The choice was probably also influenced by fashion, as evergreen species such as boxwood and rosemary, have been favoured in elite horticulture since the Renaissance. It is also significant that, thanks to pot cultivation and in conservatories, evergreens have become available for most of the year.

The species woven into garlands were mainly those foreign to the areas of Europe north of the Alps. For the most part, these are plants that were first brought from Southern Europe in the Middle Ages and were still not widely distributed in the modern period. Parts of exotic plants have been found in grave wreaths, such as the seeds of a pumpkin imported from South America. The display of imported plants, the purchase of which was initially associated with considerable expense, was a manifestation of the wealth.

In the modern period, collecting exotic plants and animals and an interest in scientific developments in biology or horticultural techniques became a pastime of the elite (Jagiełło-Kołaczyk and Brzezowski 2014: 108). In the process of cultural adaptation of plants from the south in Europe north of the Alps, a significant role was undoubtedly played by the reading of Scripture which became widespread through the Reformation and translated into the national languages, along with classical education based on knowledge of Greek and Roman literature, mythology, philosophy and art.

The creation of medical-herbal compendia which were printed guides to the botany created for use by laypeople to enable them self-medication, revolutionised the way in which knowledge of plants could be accessed and reproduced. Supplied with illustrations, herbaria made it possible to identify local plants and as well become familiar with foreign species. In addition to medical knowledge, herbaria provided an insight into the legacy of European natural science, developed since ancient times. Along with information about plants, the cultural traditions associated with them were also drawn upon.

The spread of the botanical knowledge and symbolism of Mediterranean plants is also linked to the development of emblematics and the arrival of personifications, allegories and emblems in the iconosphere. Emblems and allegorical still lifes were placed on coffins, sarcophagi, fu-

nerary equipment and also used in works of art commemorating the dead. Vegetal decoration was spread as well thanks to the inflow of imports from cultures where art based on independent floral motifs existed – Japan, China, India and the Islamic world, to modern Europe (Goody 1993: 208).

In the materials collected for the study, no strict correlations between the sex and age of the deceased and specific plant species were discerned. Such variation can be seen in the context of the form of use (flower, twig, wreath, bouquet), rather than the selection of plant species for the coffin, but there are also exceptions. Many plants were employed without restriction, for example boxwood was used both to cover the bodies of adults and to create wreaths for children. A link between the cause of death and the general health of the deceased and the botanical specimens placed in his tomb has not been observed either, apart from the presumed traces of medicines of plant origin applied probably while still alive or perimortem.

The recorded increase in the use of plants in funerary ceremonies in the modern period, especially during the Baroque era – from the late 16th-1760s, was mainly result of the tendency to elaborate funerary ceremonies. Furthermore, burials in crypts became widespread during this period. In contrast to the medieval tradition of sewing the body inside a textile, robe-like shrouds uncovering the face and hands came into use in the 16th century which then evolved into mortuary shirts. The uncovered surfaces of the bodies began to be decorated, also using plants. Corpses were temporarily preserved, also with the use of plants. Preparing the body for burial in the crypt also required the application of plants for aromatisation, preservation and the creation of an absorbent lining. Plants were important decorative symbols that were depicted at the equipment used during the ceremony: coffins, sarcophagi, funerary fabrics, and in the composition of catafalques or castles of sorrow. The modern period also witnesses the development of various types of artworks commemorating the dead, featuring floral symbols. While awaiting burial, representational portraits were made, for which the body was probably stylised with expensive fabrics and flowers (fig. 91).

The dominance of crypt finds can create an apparent perception of the luxurious nature of the custom of placing plants in burials. In the case, where the plants applied are rare, exotic, difficult to obtain, expensive species at the time of their deposition, they may be considered a manifestation of wealth.

The current state of research indicates that, in the past, a dynamic took place in funerary customs, leading from the most privileged groups to the lowest. The richest elaborated ceremonies to widen the gap between social strata while the poorest sought to shorten this distance by adopting the customs of the elite. The largest body of information on bourgeois burials relates to the 17th and 18th centuries, for Polish lands being a time of reduction of material disparities between the nobility and urban residents. In contrast, the greatest amount of information on plants in burial ceremonies in the rural areas and among commoners comes from the 18th and 19th centuries. This is most likely due to the rise of ethnographic interest, the superior state of preservation of more recent finds, but may also indicate a 'renaissance' of elite funerary customs among the lowest strata of society.

The end of the period under study is characterised by a departure from modern emblematics. The antique heritage was being read and reworked. Motifs in the arts and crafts associated with funerals continued to be drawn from the heritage of Antiquity. Funerary symbolism in the 19th century became standardised through the introduction of mass-produced funerary equipment. Plants such as poppy, palm, laurel, rose and ivy which were well-known in earlier funerary art, continued to figure in the resource of sepulchral symbols. However, they acquired meanings relating to specific terms and not, as before, concepts and narrative stories. There is a distinct tendency to use coniferous tree branches, as in funeral garlands of today. Coffins were lined primarily with wood shavings and sawdust, but also with hay and straw. Triumphal wreaths appeared which no longer had any connection with the virginity of the person buried. Maiden wreaths, however, continued to be used into the 20th century.

The overall picture of the era was significantly influenced by demographic changes in the cities which involved the migration of the rural population along with their funerary traditions and customs. The emergence of urban crypts, in which people with a different social and economic status were buried, should also be noted. The catalogue of this study also includes a small number of finds from rural cemeteries and churches from the 18th--19th centuries.

Ornamental flowers and exotic plants which had been brought to Europe from the Americas much earlier, were only identified in burials dated to the end of the early modern period (date palm, globe amaranth, Mexican marigold, apple-of-Peru). While this may be due to a long process of adaptation of new horticultural acquisitions, could also be the result of a phenomenon that involved a transfer of emphasis. Plants and furnishings, previously considered luxurious and representative, became so widespread at the end of the modern period, that wealthy people began to turn to newly imported species. This mechanism may also have been responsible for the flourishing of the custom of using grave wreaths in the rural areas, while it was rather obsolete among the other social strata.


**Fig. 91.** *Portrait on the bed of state of Wilhelm von Sachsen-Weimar who died on the 17th of May 1662*, Weimar, currently: Skokloster Castle

# CATALOGUE OF BURIALS CONTAINING PLANTS

In this section, information on burials containing equipment made from plant materials is presented in table form. The data is drawn from literature, Internet and iconographic sources. A selection of post-mortem and gravestone portraits illustrating the use of plants in the funeral ceremony are included.

The table has been arranged in alphabetical order according to contemporary administrative divisions. Each country, in which the described sources are located, has been assigned one letter of the alphabet from A to P. Each record contains information on the location, with, in the case of works of art, their current and historical places of storage or creation. The 'Source type' column indicates whether it is a work of art, a burial inside a crypt, or within a temple or cemetery. This is followed by demographic data such as the sex and age of the deceased, name identification and date of death – if known. The next column, 'Description of finds', contains all available information on plant remains in burial, including a description of botanical finds, a list of identified plant species, background information from burial observations, interpretations of discoveries, and the position of the plant in relation to the body. The identification of plant species shown in the iconographic sources is the result of the literature analysis and the author's own interpretation. The last column of the table contains abbreviated references to literature and internet sources.

Summary of abbreviations:

F – female
M – male
d. – died
NN – anonymous, unknown
ND – no data
ca. – around
b. – born
So. – southern
N. – northern

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| A1 | Austria, Burgenland | Güssing, Franciscan friary | coffin portrait | F | 44 | Aurora Katharina Formentini zu Talmein | d. 1653, date of creation: 1653 | deceased in coffin, wearing ceremonial attire, jewellery, decorated cap, with cross and rosary in hands; coffin bottom covered with white cloth, red silk cushion under head; on cushion white rose, iris, lily of the valley, carnation, wood anemone (?), on the right and left side of the head green wreaths, on the right side of the body two tulips, by the feet a sprig of rosemary or juniper, wreath made of green twigs | Koltai 2002, 122-125; Buzási 2016, 175-200<br>Fig. 14 |
| A2 | Austria, Vienna | Vienna, St Michael's Church | burials in crypt underneath the church | ND | ND | ND | crypts used between 1560 and 1784 | coffin linings made of wood shavings, rosemary springs laid at the side of the deceased, wreaths of natural plants | Ullermann 2005, 64-73; Rainer 2010, 41-47 |
| A3 | Austria, Vienna | Vienna, St Michael's Church, Maria-Candia Gruft | painted coffin | ND | ND | coffin no. 19 | crypts used between 1560 and 1784 | painted coffin, tulip on the shorter side | Rainer 2005b, 105 |
| A4 | Austria, Vienna | Vienna, St Michael's Church, Herrengruft | crypt burial | F | ND | Barbara von Schmid | d. 1740 | linings made of wood shavings, paper flowers, cross, rosary | Rainer 2005a, 152-154 |
| A5 | Austria, Vienna | Vienna, St Michael's Church, Gruft der Spanischen Bruder-schaft | crypt burial | F | ND | coffin 42 | 1765 | a myrtle wreath in a wooden container with the inscription: "Brauth Kranz d: anno 1748 Mens: May: die 23" | Ullermann 2005, 67 |
| A6 | Austria, Vienna | Vienna, St Michael's Church | painted coffin | ND | ND | coffin 57 | crypts used between 1560 and 1784 | painted coffin, a skull wearing a flower crown on the shorter side | Rainer 2005d, 77-81 |
| A7 | Austria, Vienna | Vienna, St Michael's Church, Gruft der Spanischen Bruder-schaft | crypt burial | ND | ND | coffin 64 | 17$^{th}$-18$^{th}$ c. | on the skull, a wreath made of an iron hoop with rosemary springs, paper flowers and decorations made of thin sheet metal | Ullermann 2005, 66-67 |
| A8 | Austria, Vienna | Vienna, St Michael's Church | painted coffin | ND | ND | coffin 127 | crypts used between 1560 and 1784 | painted coffin – tulips, flowers, laurel-crowned skulls, a bunch of hay under each skull | Rainer 2005c, 34 |
| A9 | Austria, Vienna | Vienna, St Lawrence Church | burial | NN | child | NN | 18$^{th}$ c. | silver wire wreath | Streinz 1966/1970, quoted by: Grupa *et al.* 2015, 120 |
| A10 | Austria, Vienna | Schönbrunn, current-ly Albertina | deathbed portrait | F | 5 | Maria Anna von Habsburg-Loth-ringen | d. 5 February 1840 | on cushion flowered shoots of pink and white roses, the deceased buried in the *Ferdinandsgruft* crypt, part of the complex of crypts of the Church of Our Lady of the Angels and the Capuchin monastery in Vienna | Kriehuber 1840 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| B1 | Belgium, Flemish Region, Antwerp Province | Antwerp, St Mary's Cathedral | church burial | ND | ND | ND | 16th-18th c. | grave crowns with silk leaves and flowers | Bungeneers 1987, 6-7; Williams 2016, 187 |
| B2 | Belgium, Flemish Region, Antwerp Province | Antwerp, St Paul's Church | crypt burials | ND | ND | NN | mid-16th – late 18th century | two children with grave crowns on their heads, the remains of at least 10 crowns, straw, ash and charcoal on the bottom of the coffins | Veeckman 1997 |
| B3 | Belgium, Flemish Region, Antwerp Province | Antwerp, St Mary's Cathedral | crypt burials | ND | ND | NN | after 1478 | 7 grave crowns, remains of cereals and straw on the coffin bottoms | Veeckman 1997 |
| B4 | Belgium, Flemish Region, Antwerp Province | Antwerp, St Paul's Church | crypt burials | ND | ND | NN | late 18th century | straw, ash and charcoal on the bottom of the coffins | Veeckman 1997 |
| B5 | Belgium, Flemish Region, Antwerp Province | Antwerp, St Paul's Church | crypt burials | ND | ND | NN | after 1636 | remains of 9 grave crowns, most coffins contain linings of straw, ash tree shavings and charcoals | Veeckman 1997 |
| B6 | Belgium, Flemish Region, Antwerp Province | Antwerp, St Paul's Church | crypt burials | ND | ND | NN | ND | remains of 7 burial crowns, straw and charcoal lining | Veeckman 1997 |
| B7 | Belgium, Flemish Region, Antwerp Province | Antwerp, St Paul's Church | crypt burials | ND | ND | NN | after 1660 | in the coffins remains of straw, ash and charcoal | Veeckman 1997 |
| B8 | Belgium, Flemish Region, Antwerp Province | Antwerp, St Paul's Church | crypt burials | ND | ND | NN | after the 1st half of the 16th c. | at least 4 burials, straw remains on coffin bottoms | Veeckman 1997 |
| B9 | Belgium, Flemish Region, East Flanders | Dendermonde, Collegiate Church of Our Lady | relics | F, M | ND | Saint Hilduardus, Saint Christiana | 7th-8th c./late 13th-early 14th c. | boxwood (*Buxus sempervirens*) – addition from late 13th-early 14th c. | De Groote *et al.* 2011 |
| B10 | Belgium, Flemish Region, East Flanders | Aalst, Carmelite convent | burial in the western cloister | ND | ND | ND | modern era | fragments of textiles, wires, leaves, boxwood twigs (*Buxus sempervirens*) in the pelvic area | Williams 2016, 189; De Groote *et al.* 2011 |
| B11 | Belgium, Flemish Region, Limburg | Sint-Truiden, Museum De Mindere | deathbed portrait | M | 76 | Petrus Marchant | d. 11 November 1661, painting created: 1701-1800 | man in a habit, with a cross in his folded hands, on a straw mat rolled up under his head | unknown author, 1701-1800, *Pater Marchant...* |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| B12 | Belgium, Wallonia, Walloon Brabant | Nivelles, the cemetery at St Gertrude's and St Peter's churches | cemetery burials | NN | ND | NN | 7th-13th c. | pollen: grasses (*Poaceae*), cereals (*Cerealia*), meadow weeds – *Compositae* (*Asteraceae*), chamomile (*Matricaria*), ribwort (*Plantago lanceolata*), wood sorrel (*Rumex acetosa*), devil's-bit (*Succisa pratensis*), meadow clover (*Trifolium pratense*), white clover (*Trifolium repens*), arable field weeds – common corn-cockle (*Agrostemma githago*), cornflower (*Centaurea cyanus*), white laceflower (*Orlaya grandiflora*), in one of the burials (no. F19) a concentration of plant macro remains under the head of the deceased, from five burials (nos. F14, F19, F10 – 2 samples, F51, F164) samples were taken from the pelvic area which may reflect the content of the meals consumed – garden chervil (*Anthriscus cerefolium*), grapevine (*Vitis vinifera*) | Deforce 2015 |
| B13 | Belgium, Wallonia, Walloon Brabant | Nivelles, cemetery at St Mary's Church | cemetery burials | NN | ND | NN | 10th-15th c. | pollen: grasses (*Poaceae*), cereals (*Cerealia*), grassland weeds – *Compositae* (*Asteraceae*), chamomile (*Matricaria*), ribwort (*Plantago lanceolata*), wood sorrel (*Rumex acetosa*), devil's-bit (*Succisa pratensis*), meadow clover (*Trifolium pratense*), white clover (*Trifolium repens*), arable field weeds – common corn-cockle (*Agrostemma githago*), cornflower (*Centaurea cyanus*), white laceflower (*Orlaya grandiflora*), one burial (no. F154) was sampled from the pelvic area which may reflect the content of the meal consumed | Deforce 2015 |
| C1 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | M | ND | Franz Laurids Skriver | ca. 1600 | filling of coffin bottom: common hop – (*Humulus lupulus*), common chickweed (*Stellaria media*) | Karg 2001 |
| C2 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | M | ND | Hans Andreas Nordborg | d. 4 April 1694 | bouquets next to the body and on the corpse, 5 samples:<br>1) twigs without leaves, shavings, common hop (*Humulus lupulus*), common mallow (*Malva silvestris*) – fruit, oregano (*Origanum vulgare*) – flowers and seeds, hyssop (*Hyssopus officinalis*) – seeds,<br>2) common oregano (*Origanum vulgare*) – flowers and seeds,<br>3) hyssop bouquet (*Hyssopus officinalis*), sow thistle (*Sonchus* spec.) – seed,<br>4) hyssop (*Hyssopus officinalis*) – flowers and seeds, common oregano (*Origanum vulgare*) – flowers,<br>5) shavings, common hop (*Humulus lupulus*), barley (*Hordeum vulgare*) – seed, pea (*Pisum sativum* L.) – seed, rue (*Ruta graveolens* L.) – capsule and seed, juniper (*Juniperus communis* L.), hyssop (*Hyssopus officinalis*) – flower | Karg 2001 |
| C3 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | F | NN | crypt 3, coffin 1 | 1600-1700 | filling of coffin base without mattress: hop cones – (*Humulus lupulus*) | Karg 2001 |
| C4 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | NN | infant | crypt 10, coffin 6 | 1700 | coffin bottom filling without mattress:<br>mainly common hop fruit, vetch (*Vicia* L.) seed | Karg 2001 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| C5 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | NN | NN | crypt 9, coffin 4 | early 1700 | coffin bottom filling without mattress: mainly common hop shoots (*Humulus lupulus*), oat (*Avena sativa*) seeds | Karg 2001 |
| C6 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | NN | NN | crypt 9, coffin 3 | early 1700 | bay laurel (*Laurus nobilis*) on the body | Karg 2001 |
| C7 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | NN | infant | crypt 9, coffin 6 | early 1700 | filling the bottom of a coffin without a mattress: mainly common hop fruit (*Humulus lupulus*), corn marigold (*Chrysanthemum segetum*) – seed, devil's-bit (*Succisa pratensis*) – seed, *Compositae* – small flower heads, corn spurry (*Spergula arvensis* L.) – seed, oats (*Avena sativa*) – seed, barley (*Hordeum vulgare*) – ear fragment, straw, leaves | Karg 2001 |
| C8 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | M | adult | Jens Svendsen Bech | d. 9 February 1731 | coffin lining: common hop fruit (*Humulus lupulus*) | Karg 2001 |
| C9 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | M | adult | Johan Georg Hansen | d. 26 June 1760 | coffin bottom lining: mostly common hop (*Humulus lupulus*) – fruit, flower petals | Karg 2001 |
| C10 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | ND | adult | crypt 9, coffin 1 | ca. 1760 | pillows and mattress filled with wood shavings, also common hop (*Humulus lupulus*) – fruit, oats (*Avena sativa*) – seed, barley (*Hordeum vulgare*) – seed, corn-cockle (*Agrostemma githago* L.) – seed, a flower of the *Labiatae* family | Karg 2001 |
| C11 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | NN | infant | crypt 10, coffin 5 | after 1770 | pillow filling: mostly common hop (*Humulus lupulus*) – fruit, rosemary (*Rosmarinus officinalis*) | Karg 2001 |
| C12 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | F | 9 | Cicilia Marie Dahl | d. 24 March 1771 | plant stems on the body, rosemary leaves (*Rosmarinus officinalis*) | Karg 2001 |
| C13 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | F | ND | Ann Belfour | d. 1 November 1793 | filling of the bottom of the coffin without a mattress: presumably sawdust (bran?) on the bottom of the coffin and the remains of bouquets of flowers that lay next to the body and on the body: boxwood (*Buxus sempervirens*) – twigs, common rye (*Secale cereale*) – 2 seeds, corn-cockle (*Agrostemma githago* L.) – seed fragment, madwort (*Alyssum* L.) | Karg 2001 |
| C14 | Denmark, Capital Region | Helsingør, St Olaf Cathedral | crypt burial | F | ND | Anne Magdalene Ferslev | d. 2 August 1795 | filling of the bottom of the coffin without a mattress: mainly common hop fruit – (*Humulus lupulus*) were placed under the body and in a layer of 10 cm above the body | Karg 2001 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| C15 | Denmark, Capital Region | Copenhagen | posthumous portrait | F | 14 | Sophia Charlotta Weigbers | d. 1681 | carnations in a vase | Stankiewicz 2015, 99 |
| C16 | Denmark, Capital Region | Copenhagen, Christianshavn-Prinsessegade, The Church of Our Saviour (Vor Frelsers Kirke) | burial | NN | child | NN | 1640-1853 | burial in coffin, bouquet at chest height: common hop (*Humulus lupulus* L.), lemon balm (*Melissa officinalis* L.), field sowthistle (*Sonchus arvensis* L.), chickweed (*Stellaria media* (L.) Vill.) | Moltsen 2000 |
| C17 | Denmark, Capital Region | Copenhagen, Christianshavn-Prinsessegade, The Church of Our Saviour (Vor Frelsers Kirke) | burial | NN | child | NN | 1640-1853 | burial in a coffin, under the head: chamomile (*Chamomila recutita* (L.) Rauschert), fringed pink (*Dianthus superbus* L.), rush (*Juncus* sp.), water chickweed (Cf. *Myosoton aquaticum* (L.) Moench), rose petals, yarrow pollen (*Achillea millefolium* L.) | Moltsen 2000 |
| C18 | Denmark, Capital Region | Copenhagen, Christianshavn-Prinsessegade, The Church of Our Saviour (Vor Frelsers Kirke) | burial | NN | child | NN | 1640-1853 | coffin lining under the body: chamomile (*Chamomila recutita* L.), common bugloss (*Anchusa officinalis* L.), unspecified flower – rose? | Moltsen 2000 |
| C19 | Denmark, Capital Region | Copenhagen, Christianshavn-Prinsessegade, The Church of Our Saviour (Vor Frelsers Kirke) | burial | NN | adult | NN | 1640-1853 | burial in a coffin, bouquet at chest level: *Labiatae*, *Brassicae* | Moltsen 2000 |
| C20 | Denmark, Capital Region | Roskilde, Cathedral, Chapel of Christian IV | burial | M | 2 | Frederick Christian Oldenburg | d. 17 July 1627 | pillow: rosemary (*Rosmarinus officinalis*), lavender (*Lavandula*) | Østergård 1988, 217-245; Grupa 2005, 74-75 |
| C21 | Denmark, Capital Region | Roskilde, cathedral, Chapel of Christian IV | burial | F | 4 months | Maria Catherina Oldenburg | d. 1 September 1628 | pillow: rosemary (*Rosmarinus officinalis*), lavender (*Lavandula*) | Østergård 1988, 217-245; Grupa 2005, 74-75 |
| C22 | Denmark, Region of Southern Denmark | Ribe, cathedral | church burial | M | ca. 69 | Iver Munk, bishop of Ribe | d. 1539 | wreath of laurel (*Laurus nobilis*) on the chest | Sanke 2012, 475-479 |
| C23 | Denmark, Region of Southern Denmark | Uth, church | family gravestone | F | young girls | Margrete and Ellen Rosenkranz | ca. 1573 | girls depicted on father's gravestone carrying apples in baskets | *Uth Kirke* 2010, 1068 |
| C24 | Denmark, Region Zealand | Næstved, Herlufsholm church | burial in a sarcophagus behind the altar | F | ca. 63 | Birgitte Gøje | d. 26 July 1574 | pillow filled with common hop (*Humulus lupulus*) | Zöllner 1974, 196; Karg 2012; Ströbl and Vick 2009, 316 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| D1 | Estonia, Harju County | Tallinn, church of St Nicholas, currently Art Museum | gravestone | M | adult | Johannes Ballivi | d. 1520 | skeleton in an arcade, on a straw mat | Kurisoo 2013, 59 Fig. 57 |
| E1 | Finlandia, Kymenlaakso Region | Ii Hamina, church cemetery | cemetery burials | ND | ND | NN | 1400-1600 | raspberry (*Rubus idaeus*), quinoa (*Chenopodium album*), turnip (*Brassica rapa*), grass pollen (*Poaceae*), sedge (*Carex*), *Compositae* (*Asteraceae*), bellflower (*Campanula*), oat (*Avena* L.), rye (*Secale* L.) | Tranberg 2015 |
| E2 | Finland, Lapland | Keminmaa, St Michael's Church | crypt burial | NN | child | coffin 20, mummy 4 | 1689-19th c. | mattress made of birch bark, linen bundles covered with cloth, fixed to the coffin at the edges with lacquer | Lipkin 2015, 216 |
| E3 | Finland, Lapland | Keminmaa, St Michael's Church | crypt burial | NN | child | mummy 2 | 1689-19th c. | head decoration, on the right side of the head a steel wire coil – base of floral decoration | Lipkin 2015, 217 |
| E4 | Finland, Lapland | Keminmaa, St Michael's Church | crypt burial | F | 1 day | child from Frosterius family | d. 1763 | a bouquet of artificial flowers in the hands | Lipkin 2015, 219 |
| E5 | Finland, Lapland | Tornio, church | church burials | F, M | ND | NN | late 1600-1800 | sawdust in several modern coffins, hay, straw, tree bark, spruce twigs as a body cover or filling of the coffin bottom | Tranberg 2015 |
| E6 | Finland, North Ostrobothnia | Oulu, cathedral | crypt burials | ND | ND | NN | 1600-1700 | filling of coffin bottom: hay, moss, in one of the burials a pillow: birch branches (*Betula*), alder branches (*Alnus*) | Tranberg 2015 |
| E7 | Finland, North Ostrobothnia | Hailuoto, church cemetery | cemetery burial | ND | ND | NN | 18th c. | body wrapped in birch bark (*Betula*) | Tranberg 2015 |
| E8 | Finland, North Ostrobothnia | Hailuoto, church cemetery | cemetery burial | ND | ND | NN | 1600-1700 | under the head a bouquet (or cushion) of buttercups (*Ranunculus*), clover (*Trifolium repens*) and sedge (*Carex*) | Tranberg 2015 |
| E9 | Finland, North Ostrobothnia | Hailuoto, church cemetery | cemetery burials | ND | ND | NN | 1600-1700 | reed lining, birch twig (*Betula*) lining | Tranberg 2015 |
| E10 | Finland, North Ostrobothnia | Kempele, church | crypt burials | ND | ND | NN | 1600-1700 | bodies covered with spruce twigs (*Picea*) | Tranberg 2015 |
| E11 | Finland, Uusimaa | Espoo, church | burial | ND | ND | NN | modern era | bouquet of bilberry (*Vaccinium*), lingonberry (*Vaccinium vitis-idaea*) or heather (*Calluna*) branches | Tranberg 2015 |
| F1 | France, Brittany | Quimper, Saint-Corentin church | church burial | NN | 0-2 months | coffin T.52 | 13th c./ dendrochronological date from the inside of the coffin 1286 A.D. | a body in a coffin, wrapped in a shroud of leather, blades of grass scattered around the skull – a pillow? | Dietrich and Gallien 2015 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| F2 | France, Brittany | Quimper, Saint-Corentin church | church burial | NN | 1 year 6 months | coffin T.69 | 13th c./ dendro-chronological date impossible for beech | body in a coffin, wrapped in a shroud of leather, blades of grass scattered around the skull – a pillow? | Dietrich and Gallien 2015 |
| F3 | France, Brittany | Rennes, Jesuit Tous-saints Church | church burial | M | over 40 | Louys de Bruslon de Plessis | d. 1 November 1661 | embalmed body, filled with vegetable matter, placed in a shroud tied with a thick cord and enclosed in a lead coffin | Colleter *et al.* 2016; Colleter (éd.) 2017 |
| F4 | France, Centre-Val de Loire | Angers, St Maurice cathedral | church burial | M | 29/30 | Nicolas Gellent, bishop of Angers | d. 1291 | tin chalice with traces of wine and paten with bread remnants depos-ited on it on the chest | Sanke 2012, 351 |
| F5 | France, Centre-Val de Loire | Laval, Vieux-Chateau crypt | crypt burial | F | 54, b. 1565 | Anne d'Alègre | d. 1619 | lead sarcophagus, skull, body and bottom of the coffin filled with organic matter, 7 samples from:<br>– skull<br>– body – under the right clavicle, location of the heart, interior of the chest, abdominal area,<br>– 'pillow' located under the arms,<br>– 'pillow' between the thighs;<br>samples for palynological examination were taken from:<br>– the upper part of the chest under the clavicle,<br>– the area between the thorax and the abdomen,<br>– abdominal cavity,<br>– lower abdomen,<br>– the coffin filling in the thigh area;<br>contain more than 90% herbaceous pollen, with a marked overrep-resentation of mugwort (*Artemisia*) and *Lamiaceae* – perhaps mint (*Mentha* sp.), thyme (*Thymus* sp. ) or oregano (*Origanum*); seeds and flowers of the following plants have been identified in the burial: umbelliferous (*Apiaceae*), anise (*Pimpinella anisum*) or burnet-saxi-frage (*Pimpinella saxifraga*), *Asteraceae*, autumn hawkbit (*Leontodon autumnalis* L. /*nudicaulis*), smooth cat's ear (*Hypochoeris glabra* L. ), teasel family (*Dipsacaceae* Juss.), plume thistle (*Cirsium* Mill.), carnation (*Caryophyllaceae*), chickweed (*Stellaria media* (L.) Vill.), campion (*Silene* L.), thyme-leaf sandwort (*Arenaria serpyllifolia* L.), cypress (*Cupressaceae*), common juniper (*Juniperus communis* L.), prickly juniper (*Juniperus oxycedrus* L.), sedges (*Cyperaceae* Juss.), bulrush (*Scirpus* L.), rush (*Juncaceae* Juss.), common rush (*Juncus* L.), *Labiateae* (*Lamiaceae* Lindl.), common thyme (*Thymus vulgaris* L.), creeping thyme (*Thymus serpyllum* L.), oregano (*Origanum vulgare*), the genus bugleweed (*Ajuga* sp.), genus mint (*Mentha* sp.), meadowgrass (*Poaceae*), millet (*Panicum miliaceum* L.), fescue (*Fes-tuca* L.), madder (*Rubiaceae*), marsh bedstraw (*Galium palustre* L.) | Marguerie 1992; Ruas 1992 |

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|---|---|---|---|---|---|---|---|---|---|
| F6 | France, Centre-Val de Loire | Épernon, St Peters Church, crypt | crypt burial – ossuary | ND | ND | skull | after 1662, ossuary created in 1760 | in the skull a mixture of plant macrofossils and entomofauna – pollen: oak (*Quercus robur*), alder (*Alnus*), grasses (*Poaceae*), cereals (*Cerealia*), crucifers (*Brassicaceae*) | Corbineau 2014, 279-303 |
| F7 | France, Centre-Val de Loire | Épernon, St Peters Church, crypt | crypt burial – ossuary | ND | ND | skull | after 1662, ossuary created in 1760 | in the skull a mixture of plant macrofossils and entomofauna – pollen: oak (*Quercus robur*), alder (*Alnus*), grasses (*Poaceae*), cereals (*Cerealia*), crucifers (*Brassicaceae*) | Corbineau 2014, 279-303 |
| F8 | France, Centre-Val de Loire | Épernon, St Peters Church, crypt | crypt burial – ossuary | ND | ND | skull 17.01-17.05 | after 1662, ossuary created in 1760 | beige-coloured powdery deposit in the face – pollen: oak (*Quercus robur*), alder (*Alnus*), grasses (*Poaceae*), cereals (*Cerealia*), hazel (*Corylus*), pine (*Pinus*), hemp or hop (*Cannabis/Humulus*), ribwort plantain (*Plantago lanceolata*) | Corbineau 2014, 279-303 |
| F9 | France, Centre-Val de Loire | Épernon, St Peters Church, crypt | crypt burial – ossuary | ND | ND | skull 17.02-17.03 | after 1662, ossuary created in 1760 | beige-coloured powdery deposit in the face – pollen: oak (*Quercus robur*), alder (*Alnus*), grasses (*Poaceae*), cereals (*Cerealia*), hazel (*Corylus*), pine (*Pinus*), hemp or hop (*Cannabis/Humulus*), ribwort plantain (*Plantago lanceolata*) | Corbineau 2014, 279-303 |
| F10 | France, Centre-Val de Loire | Épernon, St Peters Church, crypt | crypt burial – ossuary | ND | ND | skull 17.04 | after 1662, ossuary created in 1760 | brown deposit in the skull calotte – pollen: oak (*Quercus robur*), alder (*Alnus*), birch (*Betula*), myrtle (*Myrtus*), Labiatae (*Lamiaceae*), false applemint (*Mentha rotundifolia*), *Brassicaceae*, grasses (*Poaceae*), cereals (*Cerealia*), ribwort plantain (*Plantago lanceolata*) | Corbineau 2014, 279-303 |
| F11 | France, Grand Est | Belval (department Vosges), monastery, currently Musée Lorrain in Nancy | effigy | M | adult | Hugues I, count of Vaudemont with his wife Aigeline | 12th c. | bearded man in pilgrim's attire, with pilgrim's staff, embraced by his wife | Florek 2013 |
| F12 | France, Île-de-France | Paris, Notre-Dame cathedral | church burial | ND | ND | ND | 14th c. | lead coffin, preserved textile and organic material, hair and plant remains (boxwood?) | Bensine 2022; Polge 2022 |
| F13 | France, Île-de-France | Paris, Saint-Maurice, Val-de-Marne (formerly Charenton-Saint-Maurice), cemetery adjacent to a former Protestant church | cemetery burial | M | 18 | Thomas Craven | d. 20 November 1636 | body embalmed, deposited in the ground in a lead sarcophagus, wrapped in cloth and tied with string, the inside of the body was filled with plant matter, between the feet a bouquet of long-stemmed plants, the filling of the body – mainly pollen from mugwort (*Artemisia* sp.) and plants of the *Labiatae* family | Hadjouis and Corbineau 2008; Hadjouis *et al.* 2009 |

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|---|---|---|---|---|---|---|---|---|---|
| F14 | France, Normandy | Flers, Saint Germain church | church burial | M | 68 | Philippe René de la Motte Ango | buried 15 April 1737 | in a lead coffin, the following were used to embalm the body: common juniper (*Juniperus communis*) or prickly juniper (*Juniperus oxycedrus*) – berries, seeds, rosemary (*Rosmarinus officinalis*) – leaf fragments, common oregano (*Origanum vulgare*) – calyx, fennel (*Foeniculum vulgare*) – schizocarp, cloves (*Syzygium aromaticum*) – fragments | Corbineau *et al.* 2018, 162-164 |
| F15 | France, Occitania | Saint-Bertrand-de-Comminges, cathedral | church burial | ND | NN | NN | between 1291 and 1327 | wooden staff with metal fittings laid across the body, pilgrim's shell | Sanke 2012, 476 |
| G1 | Kingdom of the Netherlands, North Holland | Zwolle, currently Amsterdam | coffin portrait | F | 2,5 months | Catherina ter Borch, daughter of painter Gerard ter Borch | d. 26 June 1633 | girl in a coffin, holding a rosemary sprig in her right hand | Morel 2003, 27 Fig. 20 |
| G2 | Kingdom of the Netherlands, North Brabant | Breda, Church of the Blessed Virgin Mary, crypt on the north side of the nave | burial | M | 53 | Engelbert II van Nassau | d. 31 May 1504 | seeds of a plant from the hedge parsley genus (*Torilis*), bay leaf (*Laurus nobilis*), cereal pollen (*Cerealia*) | Haaster and Vermeeren 1999; Vermeeren and Haaster 2002 |
| G3 | Kingdom of the Netherlands, North Brabant | Breda, Church of the Blessed Virgin Mary, crypt on the north side of the nave | burial | M | 61-64 | Jan IV van Nassau (1410-1475), son of Engelbert I | 1475 | linen shroud remains, the coffin lining resembles straw, in the filling seeds of a plant of the hedge parsley genus (*Torilis*), caraway seeds (*Carum carvi*) or cumin (cf. *Cuminum cyminum*) | Haaster and Vermeeren 1999; Maat *et al.* 1997, 2501-2513; Vermeeren and Haaster 2002; Maat 2013, 53-62 |
| G4 | Kingdom of the Netherlands, North Brabant | Breda, Church of the Blessed Virgin Mary, crypt on the north side of the nave | burial | F | 51 | Cimburga van Baden (1450-1501), wife of Engelbert II | 1501 | lead coffin, embalmed body, face and head covered with a headscarf, rye (*Secale cereale*) – perhaps remnants of straw from pillow or mattress, bundles of cotton wool (*Gossypium arboreum/herbaceum*) – filling of torso and head, coriander seeds (*Coriandrum sativum*) scattered among the cotton remains, flax (*Linum usitatissimum*) – fibres, a bunch of flax with coriander seeds and unidentified flower placed in a linen pouch, pollen: mugwort (*Artemisia*), anise (*Pimpinella anisum*), touch-me-not balsam (*Impatiens noli-tangere*), chervil (*Anthriscus cerefolium*), wild bishop (*Bifora radians*), myrtle (*Myrtus communis*), cloves (*Syzygium aromaticum*), myrrh | Haaster and Vermeeren 1999; Maat *et al.* 1997, 2501-2513; Vermeeren and Haaster 2002; Maat 2013, 53-62 |

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|---|---|---|---|---|---|---|---|---|---|
| G5 | Kingdom of the Netherlands, North Brabant | Breda, Church of the Blessed Virgin Mary, crypt on the north side of the nave | burial | F | 79 | Maria van Loon (1425-1502), wife of John IV | 1502 | remains of the organic filling of the coffin, cypress cone scales (*Cupressus sempervirens*), seeds of a hedge parsley genus plant (*Torilis*), a blade of grass (*Poaceae*) – perhaps the remains of hay from a pillow or mattress, burclover – fruit, probably the species California burclover (*Medicago polymorpha*), coriander (*Coriandrum sativum*) – seeds, marjoram or oregano (*Origanum majorana/officinalis*) – leaf fragments, rosemary (*Rosmarinus officinalis*) – large number of leaves and a few seeds (bedding or cushion), thyme (*Thymus vulgaris*) – leaves, fennel (*Foeniculum vulgare*) | Haaster and Vermeeren 1999; Maat *et al.* 1997, 2501-2513; Vermeeren and Haaster 2002; Maat 2013, 53-62 |
| G6 | Kingdom of the Netherlands, North Brabant | Breda, Church of the Blessed Virgin Mary, crypt on the north side of the nave | burial | F | 34-37 | Francesca of Savoy (1480/86--1511), first wife of Henry III | 1511 | shroud remains, straw coffin lining, traces of embalming, face filled with wool, coriander (*Coriandrum sativum*) – seeds | Haaster and Vermeeren 1999; Maat *et al.* 1997, 2501-2513; Maat 2013, 53-62 |
| G7 | Kingdom of the Netherlands, North Brabant | Oosterhout, the cemetery at the southern entrance to St John's Basilica | cemetery burials | ND | ND | ND | 15$^{th}$-16$^{th}$ c. | 16 graves containing wire four-petalled flowers measuring 2.5 x 2.5 cm, copper wreaths with fragments of boxwood (*Buxus sempervirens*), younger burials contained fabric | Williams 2016, 187 |
| G8 | Kingdom of the Netherlands, North Brabant | Oosterhout, St John's Basilica | cemetery burials | ND | ND | ND | 17$^{th}$-19$^{th}$ c. | on the skulls, fragments of copper wire wreaths combined with boxwood leaves (*Buxus sempervirens*) | Williams 2016, 187 |
| G9 | Kingdom of the Netherlands, North Brabant | Oosterhout, St John's Basilica | cemetery burials | ND | ND | ND | 17$^{th}$-19$^{th}$ c. | on skulls fragments of copper wire wreaths combined with textile fragments | Williams 2016, 187 |
| G10 | Kingdom of the Netherlands, North Brabant | Stratum, church cemetery | burial | F | ND | ND | 1879 | coffin filling – straw | Arts 2017, 241-252 |
| G11 | Kingdom of the Netherlands, Gelderland | Didam, church of St Mary | cemetery burial | F | young girl | ND | ND | crown on head and in hand, made of artificial flowers, leaves from flat twisted copper wire, iron wire, glass beads, fabric, paper and sequins, perhaps the fabric comes from a cap | Williams 2016, 189 |
| G12 | Kingdom of the Netherlands, North Holland | Haarlem, cemetery at the House of Beguines | cemetery burials | ND | ND | ND | 15$^{th}$ c. | 22 skeletons with discolouration of skulls, around skull rosemary leaves (*Rosmarinus officinalis*), on skull of an adult female – copper wire with flower-shaped decoration and rosemary leaves (*Rosmarinus officinalis*) | Williams 2016, 189 |
| G13 | Kingdom of the Netherlands, North Holland | Haarlem, cemetery at Nieuwe Kerk | cemetery burials | ND | ND | ND | ca. 1650-1707 | skeletons with discolouration of skulls, rosemary leaves (*Rosmarinus officinalis*) | Williams 2016, 190 |

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|---|---|---|---|---|---|---|---|---|---|
| G14 | Kingdom of the Netherlands, North Holland | Alkmaar (?) (currently Rubenshuis in Antwerp) | deathbed portrait | M | child | NN | 1658 | portrait of a boy on his deathbed, with a branch with a rose bud in his left hand and a sprig of laurel in his right hand | van den Berg 1658 Fig. 8 |
| G15 | Kingdom of the Netherlands, North Holland | Alkmaar, Grote Kerk | church burial | NN | child | burial 220 | 1750-1830 | concentration of plant remains at chest level – violet (*Viola* L.), saltbush (*Atriplex* L.), agrimony (*Agrimonia* L.) – bouquet remains? | Bitter 2002, 258, 301 |
| G16 | Kingdom of the Netherlands, North Holland | Alkmaar, Grote Kerk | church burial | NN | 7 | burial 451 | 1750-1831 | concentration of plant remains at chest level – violet (*Viola* L.), saltbush (*Atriplex* L.), agrimony (*Agrimonia* L.) – bouquet remains? | Bitter 2002, 258, 306 |
| G17 | Kingdom of the Netherlands, Oversell | Groningen Museum, formerly Stedelijk Museum in Zwolle | posthumous portrait | ND | ND | NN | 1654 | child on a catafalque, on a cushion, wearing a bonnet and a shirt tied at the neck, with a star motif and an inscription of green rosemary sprigs, a sprig of rosemary in hands, on the head a green boxwood wreath with white flowers | de Stomme 1654 Fig. 21 |
| G18 | Kingdom of the Netherlands, Overijssel | Oldenzaal, basilica of St Plechelmus | cemetery burials | F, M | ND | ND | modern era | 127 wreaths excavated in the cemetery, two were found to contain boxwood (*Buxus sempervirens*) leaves, three in burials of adult men, six of adult women, six of children and one of young man | Williams 2016, 187 |
| G19 | Kingdom of the Netherlands, South Holland | Dordrecht, Dordrechts Museum | deathbed portrait | ND | infant | Elisabeth, daughter of Jacobus Costerus and Cornelia Jans | 1621 | a girl, deceased at birth, shown in a portrait with her siblings, wearing a rosemary wreath on her head, sprigs of rosemary and boxwood around her body on the bedding | anonymous, 1621, *The Children...* |
| G20 | Kingdom of the Netherlands, South Holland | Gouda, Museum | deathbed portrait | ND | child | NN | ca. 1645 | portrait of a child in bed, on a bundle of straw, covered with a white sheet | Helst, ca. 1645 Fig. 55 |
| G21 | Kingdom of the Netherlands, South Holland | The Hague, Mauritshuis | deathbed portrait | ND | ND | child of the Honigh family | 1675-1700 | child shown on a bed, on a bed of straw covered with a white sheet | anonymous, 1675-1700, *A Child of the Honigh Family* Fig. 56 |
| G22 | Kingdom of the Netherlands, South Holland | Leiden (currently Rijksmuseum Amsterdam) | allegorical deathbed portrait | M | 51 | Dirk van Bronkhorst (formerly as Wilhelm I of Orange) | d. 10 July 1584 in Delft | man on a bed, with a laurel wreath on his head, his right hand on Leiden's coat of arms on his chest, a breath coming out of his mouth with the phrase "Houd Het Myn Leiden" | anonymous, 1574-1599, *Dirk van Bronkhorst...* |
| H1 | Germany, Baden-Württemberg | Bretten, monastery church | gravestone | F | 4 | NN | d. 1629 | two vases on both sides of the arcade | Stankiewicz 2015, 100-101 |
| H2 | Germany, Baden-Württemberg | Crailsheim, St John's church | burial | F | ca. 70 | grave 49 | mid-May – mid-June, 15$^{th}$-16$^{th}$ c. | the body rested on pine shavings, under the head bundles of flowering plants overlaid with silk cloth, the following were identified: peppermint (*Mentha piperita*), common broom (*Sarotharnnus scoparius*), black medick (*Medicago lupulina*), common hop (*Humulus lupulus*) | Mechler, Czarnetzki 1993 |

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|---|---|---|---|---|---|---|---|---|---|
| H3 | Germany, Baden-Württemberg | Heidelberg, Sächsische Landesbibliothek – Staats- und Universitätsbibliothek Dresden | coffin portrait | M | 49 | John Casimir Wittelsbach | d. 16 January 1592 | portrait in a coffin, hands crossed on the abdomen, beneath them an estoc, an orb (insignia) and a miniature bouquet of artificial flowers | Smesman 1592 Fig. 32 |
| H4 | Germany, Baden-Württemberg | Stuttgart, Lutheran church | portrait on catafalque | F, M | 7 years and less than 1 year | Dorothea Amalia and Carl Christoph von Württemberg | d. 27 March 1650 d. 2 June 1650 | Dorothea crowned by an angel, a second angel blessing by touching a palm branch to the left hand of the girl, in the hands folded on the abdomen a bouquet of myrtle or rosemary, on the catafalque and pillow around the body unevenly distributed cut plants – tulips, roses, wild roses, carnations, anemones, rosemary sprigs, Carl Christoph crowned by an angel, another angel blesses the deceased by touching his left hand with a palm branch, in his hands folded on the abdomen a cross made of artificial and natural plants, around the body on the cloth and the cushion cut plants – roses, tulips, anemones, carnations, rosemary sprigs | Knöll 2009, 257 |
| H5 | Germany, Baden-Württemberg | Stuttgart Württembergisches Landesmuseum | portrait on catafalque | F | 60 | Anna Johanna von Württemberg | d. 5 March 1679 in Neuenstadt am Kocher, buried in the city church | the woman lies on a cushion, wearing a wreath on her head of green leaves interwoven with white beads, in her hands folded over her abdomen a cross of green twigs with white beads, along her dress, to the right and left are pinned bouquets of rosemary tied with red ribbons, pink rose flowers around her body, above the deceased is a figure with a golden crown in hand, in the upper right corner the heavens open | Neumann (Hrsg.) 2007, 208 Fig. 33 |
| H6 | Germany, Baden-Württemberg | Stuttgart, Württembergisches Landesmuseum | portrait on catafalque | F | 66 | Antonia von Württemberg | d. 1 October 1679, buried in the collegiate church, heart buried in church in Bad Teinach-Zavelstein | the woman lies in a black coffin on a cushion of patterned fabric; on her head is a green wreath interspersed with red carnations and small white flowers; beside her head is an orange blossom; a similar wreath is placed on her robe at foot level; on her abdomen, under her folded hands, is a floral decoration; around her body are many flowers – narcissi, daffodils, hyacinths, crocuses, irises, etc, above the body an open sky with putti, between the clouds the inscription “E.L.” in medallion | Neumann (Hrsg.) 2007, 209 Fig. 19 |
| H7 | Germany, Baden-Württemberg | Stuttgart, Württembergisches Landesmuseum | portrait on catafalque | F | 59 | Maria Dorothea Sophia von Oettingen-Oettingen | d. 29 June 1698, buried in Stiftskirche, Stuttgart | a woman lies on a catafalque covered with black cloth, on a black-coloured cushion, under her hands folded over her stomach a rosemary cross decorated with white pearls (beads?) | anonymous, 1698, *Maria Dorothea Sophia*... |

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|---|---|---|---|---|---|---|---|---|---|
| H8 | Germany, Baden-Württemberg | Tübingen, St George Church | burial | M | 14 | Wilhelm Ernst von Waldeck | d. 16 October 1598 | 'sphaera' – a spherical form made of metal hoops wrapped with boxwood (*Buxus sempervirens*) branches, with a crucifix, a green wreath of wires imitating plants on the head, when the coffin was closed both decorations were placed on the lid | Knöll 2009, 250-252 |
| H9 | Germany, Bavaria | Ansbach (currently The Fitzwilliam Museum, Cambridge) | coffin portrait | M | 64 | George Friedrich Hohenzollern | d. 25 April 1603 | the deceased in an open coffin, in parade dress and with weapons, around the coffin on the floor cut flowers – roses, carnations, lily of the valley, wood anemones | Kilian 1603 |
| H10 | Germany, Bavaria | Bad Windsheim, Spitalkirche | burial under the church floor | M | 5 | Heinrich? von Reitzenstein | d. 1632 | silk cushion cover?, coffin decoration – bouquets of boxwood (*Buxus sempervirens*), silk flowers, rosemary sprigs (*Rossmarinus officinalis*), combined with gold-framed oak galls and metal foil; around the coffin a large number of bouquets of boxwood (*Buxus sempervirens*) with partly gilded leaves, with strips of noble metal and sequins (*Pailletten*) | Steeger 2003, 28 |
| H11 | Germany, Bavaria | Bad Windsheim, Spitalkirche | crypt burial under the church floor | F | 1 year and 2 weeks | Eva Rosina von Reitzenstein | d. 26 August 1633 | sprigs of rosemary (*Rossmarinus officinalis*) with gilded oak galls, a bouquet in a metal cover placed on the chest on the right side, a sepulchral crown on the head, a layer of herbs on the bottom of the coffin | Steeger 2003, 28-32 |
| H12 | Germany, Bavaria | Bad Windsheim, Spitalkirche | burial under the church floor | F | 16 | Maria Barbara von Reitzenstein | d. 6 September 1634 | remains of the coffin decoration – probably in the form of two wreaths; a bouquet composed of boxwood twigs (*Buxus sempervirens*) with partly gilded leaves, metal ornaments (*Flitter*) on a thin wire, rosemary (*Rossmarinus officinalis*); hairstyle – braids interwoven with a ribbon pinned to the head, in which bouquets of flowers were placed | Steeger 2003, 30 |
| H13 | Germany, Bavaria | Bad Windsheim, Spitalkirche | burial under the church floor | M | adult | Johann Christian von Reitzenstein | d. 28 September 1634 | under the right hand, folded at chest height, are fragments of a prayer book and a bouquet – made of boxwood (*Buxus sempervirens*) with partly gilded leaves, metal foil and metal ornaments (*Flitter*) | Steeger 2003, 31 |
| H14 | Germany, Bavaria | Himmelkron, monastery | sarcophagus effigy | M | 41 | Otto III. von Weimar-Orlamünde | d. in June 1285 | man in a diadem with rosettes on his head | anonymous, after 1285, *Grabstein des Grafen Otto III...* |
| H15 | Germany, Bavaria | Munich | portrait on catafalque | F | 54 | Maria Anna Karoline Josepha Dominika von Bayern | d. 9 October 1750, buried in Munich Cathedral | woman in nun's dress, wearing a wreath on her head, with a bouquet in her left hand and a cross in her right, placed on her abdomen | Neumann (Hrsg.) 2007, 157; Cassitti 2018, 95 |

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|---|---|---|---|---|---|---|---|---|---|
| H16 | Germany, Bavaria | Sayn near Koblenz, currently Nuremberg, Germanisches Nationalmuseum | tomb sculpture | M | adult | Count Heinrich III. von Sayn, b. ca. 1193 with daughter? | ca. 1247/48 | a man wearing a diadem, standing under a canopy, beside him a girl with a lemon or pomegranate in her hand, originally holding a sprig of rosemary in the other, which the man is grasping with his right hand | Neurath-Sippel 2011 Fig. 89 |
| H17 | Germany, Bavaria | Nuremberg, Germanisches Nationalmuseum | portrait on catafalque | M | 70 | Bartholomäus II. Viatis | 1644 | a man on a catafalque, lying on a white canvas and white cushion, wearing a black robe, in his right hand he holds an orange branch, in his left hand an orange fruit | Neurath-Sippel 2011 Fig. 89 |
| H18 | Germany, ND | private collection | miniature of a coffin | M | 51 | Tobias Peller von Schoppershof | 1650 | on a white cushion, a man in a black outfit trimmed with white and gold ribbon and with a white and gold collar, in his left hand a white scarf and an orange fruit | Neurath-Sippel 2011 |
| H19 | Germany, Bavaria | Wirsberg, parish church of St John | gravestone | M | 2 | Johannes Alexander Thümming | d. 1660 | the boy holds a rose in his hand, the other hand points to the flower | Stankiewicz 2015, 99 |
| H20 | Germany, Bavaria | Wunsiedel, Lutheran church | gravestone | ND | ND | ND | ND | two flower vases on either side of the arcade | Stankiewicz 2015, 101 |
| H21 | Germany, Bavaria | Wunsiedel, Lutheran church | gravestone | F | child | NN | 1639-1649 | an outline of a tombstone showing a girl wearing a grave crown consisting of rosemary, glass beads fixed on a wire and a band, in her right hand a bouquet of flowers | Singer 1982, 7, il. 8, quoted by: Seib 2007, 142 |
| H22 | Germany, Bavaria | Würzburg, former Lutheran church in Kitzingen, Mainfränkisches Museum | gravestone | F | 23 | Kunigunde Hojos | d. 1557 | a woman wearing a wreath on her head | Neumann (Hrsg.) 2007, 206; Seib 2007, 138 |
| H23 | Germany, Brandenburg | Berlin, parish church in Berlin-Mitte | crypt burials | F, M | adults, children | NN | early 18th century – last third of 19th century | coffin linings of wood shavings and wood waste, cushions filled with common hop, less often with wood shavings, conifer leaves, straw; bundles of plants, twigs on or around the body, infructescences of shrubs, parts of field flowers, mosses and cereals, in two coffins common clubmoss (*Lycopodium clavatum*) | Wittkopp 2002 |
| H24 | Germany, Brandenburg | Berlin, parish church | burial | M | adult | NN | early 18th century – last third of 19th century | a laurel wreath (*Laurus nobilis*) on a cushion near the head of the deceased | Lippok 2007, cat. 11/12 |
| H25 | Germany, Brandenburg | Berlin, parish church | burial | NN | adult | coffin 1/55 | early 18th century – last third of 19th century | seagrass coffin lining (*Zostera maritima*) | Wittkopp 2015 |

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|---|---|---|---|---|---|---|---|---|---|
| H26 | Germany, Brandenburg | Berlin, parish church | burial | NN | child | coffin 3/22 | early 18th century – last third of 19th century | filling of coffin bottom with fabric-covered plants, cushion filled with sea grass (*Zostera maritima*) | Wittkopp 2015 |
| H27 | Germany, Brandenburg | Berlin, parish church | burial | NN | child | coffin 3/31 | early 18th century – last third of 19th century | common clubmoss (*Lycopodium clavatum*) | Wittkopp 2015 |
| H28 | Germany, Brandenburg | Berlin, parish church | burial | NN | child | NN | early 18th century – last third of 19th century | juniper (*Juniperus* L.) | Wittkopp 2015 |
| H29 | Germany, Brandenburg | Berlin, parish church | burial | NN | child | NN | early 18th century – last third of 19th century | wreath or diadem – springy turf-moss (*Rhytidiadelphus squarrosus*) attached to a hoop made of wood | Lippok 2007, 260, 2009, cat. 11/12; Wittkopp 2015 |
| H30 | Germany, Brandenburg | Berlin, parish church | crypt burial | M | ND | Lorenz Christoph Schneider, coffin 6/9 | 1715 | furnishings in the form of an unidentified plant (?), wood chip lining, cushion (?) filling of wood chips, wood dowels and leaves, chestnut (*Aesculus* L.) fruit in the lining | Krebs 2002, 48-49 |
| H31 | Germany, Brandenburg | Berlin, Schlossplatz, former church cemetery | burial | ND | ND | grave 622 | ca. 1600 – mid-18th c. | pumpkin seeds (*Cucurbita* L.), partly gilded, gilded boxwood leaves (*Buxus sempervirens*) – parts of a grave wreath | Lippok 2015, 85-86 |
| H32 | Germany, Brandenburg | Berlin, Schlossplatz, former church cemetery | burial | ND | ND | grave 642 | ca. 1600 – mid-18th c. | pumpkin seeds (*Cucurbita* L.) woven into wire products (*leonische Drahte*) | Lippok 2015, 85-86 |
| H33 | Germany, Brandenburg | Berlin, Cathedral of St Hedwig, cemetery | burials | F, M | adults, children | NN | 18th-19th c. | remains of 22 grave crowns in burials, coffin linings of wood shavings | Escher *et al.* 2011, 106-107 |
| H34 | Germany, Brandenburg | Berlin, former St Peter's Church | cemetery burial | ND | child | ND | ca. 1500 | pumpkin seeds (*Cucurbita* L.) woven into wire products (*leonische Drahte*) | Lippok 2015, 86 |
| H35 | Germany, Brandenburg | Bad Freienwalde, St Nicholas Town Parish Church | coffin portrait | M | 9 | Caspar von Uchtenhagen | d. 8 July 1603 | on the body arranged rosebuds and rosemary or myrtle twigs, on the head a wreath of leaves and small pink flowers – probably rosemary, in the right hand a rose | Stankiewicz 2015, 104; Schuchard 2007, 241 Fig. 4 |
| H36 | Germany, Brandenburg | Brandenburg an der Havel, cathedral, Schlabrendorffschen Gruft | burial | F | 52-56, b. between 1649 and 1653 | Ursula von Schlabrendorff | buried 4 June 1705 | cap – an attribute of a married woman, a cushion filled with hay | Diane 2005, 101-104; Jungklaus 2005, 105-109; Krebs 2005, 81-87; Ströbl 2005, 88-93; Wittkopp 2005, 94-100, 2015, 60-61 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| H37 | Germany, Brandenburg | Brandenburg an der Havel, cathedral, Schlabrendorffschen Gruft | burial | F | 5,5 months, b. 20 March 1707 | girl from von Oppen family | d. 5 September 1707, buried 8 September 1707 | the coffin is filled with white linen, two pillows – under the head and near the feet, decorated with silk ribbons, wreaths and white artificial flowers; a wreath of iron wires, placed on the cap, decorated with plants – common myrtle (*Myrtus communis* L. ), inside the coffin, artificial flowers and bouquets of natural plants, bouquet of unspecified flowers, myrtle (*Myrtus communis* L.), twigs and fruit of unspecified citrus trees, cap of green colour, trimmed with lace with floral motifs | Diane 2005, 101-104; Jungklaus 2005, 105-109; Krebs 2005, 81-87; Ströbl 2005, 88-93; Wittkopp 2005, 94-100, 2015, 60-61 |
| H38 | Germany, Brandenburg | Brandenburg an der Havel, cathedral, Schlabrendorffschen Gruft | burial | M | 89, b. 11 October 1698 | Hans Friedrich von Rochow | d. 29 November 1787 | man in uniform, cushion filling – common hop (*Humulus lupulus* L.), around the feet a wreath of bay laurel (*Laurus nobilis* L.) | Diane 2005, 101-104; Jungklaus 2005, 105-109; Krebs 2005, 81-87; Ströbl 2005, 88-93; Wittkopp 2005, 94-100, 2015, 60-61 |
| H39 | Germany, Brandenburg | Brandenburg an der Havel, cathedral, Schlabrendorffschen Gruft | burial | F | 11 | Karoline Louise Adolphine Freiin von Danckelmann | d. 26 April 1794 | bouquet on chest, on the left – common myrtle (*Myrtus communis* L.) and unspecified flowering plant | Diane 2005, 101-104; Jungklaus 2005, 105-109; Krebs 2005, 81-87; Ströbl 2005, 88-93; Wittkopp 2005, 94-100, 2015, 60-61 |
| H40 | Germany, Brandenburg | Brandenburg an der Havel, cathedral, Schlabrendorffschen Gruft | burial | F | 40, b. 16 May 1793 | Charlotte Karoline Wilhelmine von Schlabrendorff | d. 25 May 1833 in Potsdam, buried 26 May 1833 | a bundle of brushwood between the legs | Diane 2005, 101-104; Jungklaus 2005, 105-109; Krebs 2005, 81-87; Ströbl 2005, 88-93; Wittkopp 2005, 94-100, 2015, 60-61 |
| H41 | Germany, Brandenburg | Brandenburg an der Havel, cathedral, Schlabrendorffschen Gruft | burial | F | 72, b. 31 December 1763 | Karoline Friederike Wilhelmine von Schlabrendorff, maiden name Ehrenberg | d. 29 January 1835 | cap – an attribute of a married woman, a bouquet of bitter orange leaves (*Citrus aurantium* L.), sweet orange leaves and fruit (*Citrus sinensis* (L.) Osbeck), oak leaves (*Quercus* sp.), inflorescences of globe amaranth (*Gomphrena globosa* L.), a sprig of myrtle (*Myrtus* L.) or olive (*Olea* L.) | Diane 2005, 101-104; Jungklaus 2005, 105-109; Krebs 2005, 81-87; Ströbl 2005, 88-93; Wittkopp 2005, 94-100, 60-61 |

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|---|---|---|---|---|---|---|---|---|---|
| H42 | Germany, Brandenburg | Illmersdorf, church | crypt burial | M | 52 | Caspar Ernst von Normann | d. 1748 | thick linen cloth on the bottom of the coffin, on which wood shavings are placed and covered with damask cloth, the body in the coffin was covered with a layer of shavings | von Scheven 2012, 87 |
| H43 | Germany, Brandenburg | Illmersdorf, church | crypt burial | M | 72 | Wilhelm Erdmann von Normann | d. 1806 | the deceased deposited on a padding of shavings covered with a white cloth which was nailed to the walls of the coffin | von Scheven 2012, 95 |
| H44 | Germany, Brandenburg | Illmersdorf, church | crypt burial | F | 81 | Caroline Louise von Schönberg | d. 1821 | rests on a padding of wood shavings, covered with white linen over which a silk fabric has been placed | von Scheven 2012, 97-98 |
| H45 | Germany, Brandenburg | Neuruppin, St Nicholas Church | burial | ND | ND | ND | 16th-19th c. | the wreath contained conifer twigs | Lippok 2009, 29-30, cat. 79 |
| H46 | Germany, Brandenburg | Prenzlau, Dominican monastery, cemetery | burial | NN | child | NN | 16th-18th c. | next to the head, a pouch containing chestnuts (*Aesculus* L.) | Stankiewicz 2015, 101 |
| H47 | Germany, Brandenburg | Prenzlau, Dominican monastery | burial | NN | child | NN | 16th-18th c. | near the head a fragment of a boxwood twig (*Buxus sempervirens*) | Ungerath, *Siedlungsbefunde und Bestattungen...* |
| H48 | Germany, Brandenburg | Prenzlau, Dominican monastery | burial | F | adult | NN | 16th-18th c. | four bouquets – in folded hands, on the chest, on the knees and on the chest on the right side, the stems of the plants were wrapped with a thin red ribbon and braided with copper wire, on which juniper berries (*Juniperus communis* L.) were strung | Ungerath 2002 |
| H49 | Germany, Brandenburg | Prenzlau, former Dominican monastery | burials | ND | ND | ND | 16th-18th c. | 39 wreaths out of 683 graves, wreaths contained gilded juniper berries (*Juniperus communis* L.); in graves 78, 182, 668, juniper berries (*Juniperus communis* L.) and cloves (*Syzygium aromaticum*) | Lippok 2009, 29-30, cat. 97-133 |
| H50 | Germany, Brandenburg | Pritzen (Brandenburg), parish church crypts and cemetery | burial | ND | ND | ND | 16th-17th c. | one grave wreath inside the brick crypt under the church, the wreath contained gilded flowers of clove (*Syzygium aromaticum*), spruce twigs (*Picea*), laurel (*Laurus nobilis*) | Lippok 2009, 30, cat. 68 |
| H51 | Germany, Brandenburg | Rüdersdorf-Tasdorf, church cemetery | burials | ND | ND | ND | 16th-18th c. | 20 wreaths out of 378 graves, wreaths made of boxwood (*Buxus sempervirens*) | Lippok 2009, 31 |
| H52 | Germany, Brandenburg | Rüdersdorf-Tasdorf, church cemetery | burial | ND | child | grave 337 | 18th c. | on the chest a cross of artificial flowers (textile) with carnations | Wittkopp 2015, 66 |
| H53 | Germany, Brandenburg | Cottbus (Brandenburg) | gravestone | M | 1 year and 4 years | Siegmund Krieger and Martin Sigmund Krieger | d. 1660<br>d. 1661 | brothers holding hands, the younger Siegmund holding three rosemary sprigs in his hand | Stankiewicz 2015, 105 |

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|---|---|---|---|---|---|---|---|---|---|
| H54 | Germany, Brandenburg | Ketzür, church | gravestone | F | 8 months | Anna Maria von Brösick | d. 1620 | in her hands sprigs of herbs (rosemary?), on her belly a cross with initials | Stankiewicz 2015, 105 |
| H55 | Germany, Brandenburg | Menkin, church | crypt burials | F, M | ND | members of the von Winterfeld family | 1637-1900 | 14 wooden coffins, one tin coffin, coffin linings containing wood shavings, straw and hop flowers (*Humulus lupulus* L.) | Jungklaus and Vick 2012, 65-78 |
| H56 | Germany, Bremen | Bremen, St Paul's Cathedral, northern nave | church burial | M | 42 or 66 | archbishop Otto II. of Bremen or Johann III. Rode von Wale | d. 30 June 1406 or 4 December 1511 | near the feet a 5 cm long twig – pilgrim's staff? | Sanke 2012, 475-479 |
| H57 | Germany, Hesse | Alheim-Baumbach, cemetery | gravestone | F | 10 months | Barbara Kleinkauf | d. 1864 | the finial of the epitaph shows a girl between two flowers (tulips?) which she is holding in her hands; above her is a crown with an acanthus motif, held by two angels holding the stems of flowers (narcissus?); the epitaph is framed by floral motifs | Seib 2007, 146 |
| H58 | Germany, Hesse | Alten-Buseck, Lutheran church | gravestone | F | young girl | Anna von Schwalbach | d. 16 October 1597 | a wreath on her head, a flower in her folded hands | anonymous, 1597, *Anna von Schwalbach...* |
| H59 | Germany, Hesse | Alsfeld-Berfa, churchyard | gravestone | NN | child | NN | mid-18$^{th}$ c. | child lying on a cushion or in an open coffin, crowned by an angel | Seib 2007, 148 |
| H60 | Germany, Hesse | Bad Sachsa, Walkenried monastery | gravestone | F | 6 | Dorothea Elisabeth von Hohnstein (Barbey?) | 1595 | girl wearing a wreath of leaves (laurel?) on her head, with a bouquet of flowers in her hands | Seib 2007, 141 |
| H61 | Germany, Hesse | Bayreuth, town church | gravestone | F | 1 year 29 weeks | Erdmuth Sophie von Pudewels | d. 1619 | girl in fashionable dress, cap on her head, on top of which is a high floral grave crown, in her left hand a flower, in both hands she holds a book, on her chest a floral wreath with a central rosette | Seib 2007, 144 |
| H62 | Germany, Hesse | Bebra-Asmushausen, churchyard | gravestone | NN | children | NN | late 18$^{th}$ c. | in the epitaph finial with three children's figures, above them a crown topped with five-petalled flowers and twigs, the epitaph is framed by representations of plants – tulips and forget-me-nots | Seib 2007, 145 |
| H63 | Germany, Hesse | Bebra-Asmushausen, churchyard | gravestone | NN | children | NN | late 18$^{th}$ c. | the epitaph's finial depicts four children's figures, a girl with a wreath on her head, two boys with bouquets?, above them a crown with an acanthus motif, the epitaph framed by floral representations, including rose flowers | Seib 2007, 145-146 |
| H64 | Germany, Hesse | Bibra, Lutheran church | gravestone | M | 5 i 19 days, b. 3 March 1674 | Hans Ernst von Bibra and Philipp Heinrich von Bibra | d. 1674 | children in swaddling clothes, shown upright next to a column on which an hourglass has been placed; two crowning hands with wreaths emerge from the clouds | Seib 2007, 148-149 |

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|---|---|---|---|---|---|---|---|---|---|
| H65 | Germany, Hesse | Bibra, Lutheran church | gravestone | F | 5 | Sophia Juliana von Bibra | 1690 | on her head an ornamental cap, in her left hand a rose blossom from which petals are falling, in the background roses, lilies, lilies of the valley | Seib 2007, 144 Fig. 9 |
| H66 | Germany, Hesse | Birsten – Unter-reichenbach, former Lutheran church | gravestone | F | adult, child | Greta von Weilnau with her daughter, Margarete von Weilnau | d. 1362 (mother) and 1364 (daughter) | girl with a small wreath on her head, shown together with her mother | Seib 2007, 138 |
| H67 | Germany, Hesse | Butzbach, former parish church | painted epitaph | M | 28 | Johann Jacob Ottraw | d. 24 July 1635 | deceased kneeling with his bride who is wearing a wreath on her head, both holding a green wreath – *Totenhochzeit* symbol | Seib 2007, 153-154 |
| H68 | Germany, Hesse | Gudensberg, former cemetery | gravestone | F | young girl | NN | ca. 1600 | girl wearing a wreath on her head, with a flower in the fingers of her right hand | Seib 2007, 142 |
| H69 | Germany, Hesse | Gudensberg, former cemetery | gravestone | F | children | family Draubel | 1616 | parents and five girls, kneeling, with wreaths on their heads | Seib 2007, 142 |
| H70 | Germany, Hesse | Haina-Mohnhausen, churchyard | gravestone | F | young girl | NN | mid-18$^{th}$ c. | the epitaph's finial features a girl crowned by an angel emerging from the clouds; large flowers are depicted on either side of the figure | Seib 2007, 147 |
| H71 | Germany, Hesse | Ilmtal-Griesheim, churchyard | gravestone | F, M | 5 and 1 | Christian August Stolz and Charlotte Ernestine Stolz | d. 1724 | a girl holds a bouquet of roses, her brother, wearing a wreath on his head, holds a crown over his sister | Seib 2007, 151 |
| H72 | Germany, Hesse | Ilmtal-Griesheim, churchyard | gravestone | F, M | 9 and 5 | Christian Gottfried Stolz and Charlotte Henriette Stolz | d. 1727 | girl wearing a wreath on her head, her brother reaches with his right hand for a crown in the clouds | Seib 2007, 151 |
| H73 | Germany, Hesse | Kühndorf, cemetery | gravestone | F | ND | Amalie Henriette Straβburger | ca. 1840 | a weeper placing a wreath of flowers on an urn | Seib 2007, 149-150 |
| H74 | Germany, Hesse | Lahntal-Caldern, churchyard | gravestone | F | young girl | Eva-Maria Damshäuser | ca. 1720 | in the finial of the epitaph a girl crowned by an angel emerging from the clouds, the epitaph framed by floral motifs | Seib 2007, 147 |
| H75 | Germany, Hesse | Kirchhain-Groβ-sesselheim, parish church | gravestone | F | young girl | Agnes Meisenbug (Meysebuchin, Meysenbug) | d. 7 June 1587 | girl with a flower wreath on her head and long, loose hair | anonymous, 1587, *Agnes Meisenbug...*; Seib 2007, 140-141 |
| H76 | Germany, Hesse | Lichtenfels-Fürstenberg, Lutheran church | gravestone | F | 2 | Anne Elisabeth Schaefer? | 1734 | girl crowned by two angels, holding a bouquet in her right hand | Seib 2007, 148 |

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|---|---|---|---|---|---|---|---|---|---|
| H77 | Germany, Hesse | Marburg, St Elizabeth Church | gravestone | F, M | children | Heinrich and Elisabeth von Nassau | d. 1394 | children shown lying supine, with cushions under their heads, feet supported on consoles, wearing diadems on their heads | Leisner 2009, 323 |
| H78 | Germany, Hesse | Michelbach, Protestant parish church | gravestone | F, M | 10 days-7 months | Johann Philipp, Georg and Catharina, children of pastor Otto Henckel | 1628-1635 | girl in long-sleeved dress with ruffled collar, wreath on head and loose, long hair, boys in headwear | anonymous, 1628-1635, *Drei Kinder des Pfarrers Otto Henckel* |
| H79 | Germany, Hesse | Neunstein-Obergeis, Lutheran church | gravestone | M | adult | Johann Nolde? | d. 1686 | kneeling man, a hand holding a crown emerges from the clouds | Seib 2007, 147 |
| H80 | Germany, Hesse | Niederdorla, cemetery | gravestone | M | 23 | Johann-Hermann Hartung | 1753 | in groom's attire, with a wreath of leaves (laurel?) on his head | Seib 2007, 143 |
| H81 | Germany, Hesse | Niederdorla, cemetery | gravestone | M | 13 | Johann-Michael Sonntag | 1754 | with a wreath on his head | Seib 2007, 143 |
| H82 | Germany, Hesse | Niedenstein-Wichdorf, Lutheran church | gravestone | M | 1 | Carolus Zeuch | d. 1675 | a boy with a palm branch in his right hand, to his left a tulip, above his head two angels holding a wreath and a crown, on either side of the boy figure branches with apples | Seib 2007, 152 |
| H83 | Germany, Hesse | Ottrau, churchyard | gravestone | NN | NN | NN | early 18th c. | a seated child crowned by an angel emerging from the clouds | Seib 2007, 149 |
| H84 | Germany, Hesse | Ottrau, churchyard | gravestone | NN | children | NN | 1813? | the epitaph's finial shows two girls holding hands, each holding a flower, one a tulip, the other a narcissus; above them a crown with an acanthus motif, held by two angels with flowers in their hands (violet? forget-me-not? and narcissus), the epitaph is framed by floral motifs, including tulips | Seib 2007, 146 |
| H85 | Germany, Hesse | Ostheim v.d. Rhön, Lutheran church | gravestone | M | 8 | Ernst von Obernitz | 1573 | boy with a wreath of leaves (laurel? boxwood?) on his head | Seib 2007, 139-140 |
| H86 | Germany, Hesse | Rhoden, cemetery | gravestone | NN | 1 year 2 months 3 days | NN | early 18th c. | a child wearing a crown, with a flower in folded hands; on either side of the figure are twisted stems with flowers resembling tulips | Seib 2007, 144-145 |
| H87 | Germany, Hesse | Ringgauch-Lüderbach, churchyard | gravestone | M | young adult | Johann Heinrich Salzmann | d. 1768 | the epitaph's finial depicts the figure of a murdered young man wearing a crown on his head topped with five-petalled flowers, with an hourglass in his left hand and the murder weapon (dagger) in his right hand | Seib 2007, 145 |

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|---|---|---|---|---|---|---|---|---|---|
| H88 | Germany, Hesse | Salzböden, Lutheran church | gravestone | F | young girl | Anna (Enge) or Suse von Rolshausen | 1582 | girl with a flower wreath on her head and long, loose hair | anonymous, 1582, *Anna (Enge) von Rolshausen...*; Seib 2007, 140-141 |
| H89 | Germany, Hesse | Salzböden, Lutheran church | gravestone | F | young girl | Maria (Merge) von Rolshausen | 1585 or 1587? | girl with a flower wreath on her head and long, loose hair | anonymous, 1585, *Maria (Merge) von Rolshausen...*; Seib 2007, 140-141 |
| H90 | Germany, Hesse | Schenklengsfel, former Lutheran church | gravestone | F | NN | NN | d. 1525 | girl prays in front of a crucifix, on her head with long hair loose, a wreath of roses | Seib 2007, 137-155 |
| H91 | Germany, Hesse | Schrecksbach-Rollshausen, churchyard | gravestone | M | young adult | Johannes Schmidt | ca. 1740 | in the finial of the epitaph two putti holding a crown, epitaph framed by floral motifs, flowers | Seib 2007, 152-153 |
| H92 | Germany, Hesse | Michelstadt, convent church (currently Saint Louis Art Museum) | gravestone | F, M | children | Elisabeth Schenkin von Erbach and Ulrich Schenk von Erbach | d. 25 July 1368 and 10 May 1369 | two figures wearing headbands (diadems) on loose hair | anonymous, XIV c., *Tomb Relief...*; anonymous, 1365/1369, *Saint Louis...* |
| H93 | Germany, Hesse | Teichröda, churchyard | gravestone | F | 18 and 21 | Katharina Margaretha Müllerin and Catharina Dorothea Müllerin | 1746 | two women wearing wreaths, the woman on the left holds a heart (*Caritas*?) and the one on the right a flower (*Spes*?), above them a crown is shown | Seib 2007, 151 |
| H94 | Germany, Hesse | Trendelburg, Lutheran church | burials | F, M | adult, child | burials of von Stockhausen family | 17$^{th}$-19$^{th}$ c. | lining with straw, wood shavings and plants, sprinkling with herbs, the following plants were identified in 10 coffins: cotton lavender (*Santolina chamaecyparissus*), chamomile (*Chamomilla recutita*), coriander (*Coriandrum sativum*), lavender (*Lavandula angustifolia*), ligustrum (*Ligustrum vulgare*), laurel (*Laurus nobilis*), peppermint (*Mentha piperita*), rosemary (*Rosmarinus officinalis*), sage (*Salvia officinalis*)?, wormwood (*Artemisia absinthium*), sweet vernal grass (*Anthoxanthum odoratum*), hyssop (*Hysopus officinalis*) | Linnebach 1994, 43-65; Rosinski 2007, 144 |
| H95 | Germany, Hesse | Trendelburg, Lutheran church | painted coffin | M | 68 | Hans Georg von Stockhausen | d. 10 April 1780 | painted coffin – heraldic shields, blooming rosebush on longer sides | Neumann (Hrsg.) 1994, 144 |
| H96 | Germany, Hesse | Trendelburg, Lutheran church | painted coffin | F | 29 | Ernestina Frederica von Stockhausen | d. 14 April 1766 | painted coffin – heraldic shields, shorter side – skull with crossed bones, lid – stars, floral ornaments, shorter sides – blooming rosebush, heads of angles, hourglass, blown-out candle | Neumann (Hrsg.), 1994, 141 |

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|---|---|---|---|---|---|---|---|---|---|
| H97 | Germany, Hesse | Trendelburg, Lutheran church | painted coffin | F | 5 | Johanna Christina Elisabetha von Stockhausen | d. 6/7 April 1757 | painted coffin – heraldic shields, on the shorter side – palm branch | Neumann (hrsg.) 1994, 136-137 |
| H98 | Germany, Hesse | Weinbergen-Seebach, parish church | painted epitaph | F | 1 year 5 months | Anna Elisabetha Sophia von Berlepsch | 1700 | girl dressed as a bride receives a wreath from an angel emerging from the clouds, epitaph frame – floral motifs, crown | Seib 2007, 155 |
| H99 | Germany, Hesse | Wiesbaden, former cemetery | gravestone | F | 2 | Johanne Wilhelmine Auguste Baeppler | 1840 | the girl is lying on a cushion, holding a flower in her left hand, above her an angel is depicted holding a wreath of flowers in his right hand and a palm branch in his left hand | Seib 2007, 149 |
| H100 | Germany, Hesse | Witzenhausen-Neuseesen, churchyard | gravestone | M | NN | NN | ca. 1740 | in the finial of the epitaph two putti holding a crown | Seib 2007, 152 |
| H101 | Germany, Hesse | Wölfershausen, former cemetery | gravestone | F | 22 or 72? (inscription illegible) | Angelica Schimmelpfeng | d. 24 October 1714 | the upper part shows a family, consisting of the deceased and two men (probably a husband and a son), the figures are depicted between two bent tulips, above them hovering angels, in the lower part of the panel an inscription surrounded by a laurel wreath | anonymous, 1714, *Angelica Schimmelpfeng...* |
| H102 | Germany, Lower Saxony | Barsinghausen, convent church | gravestone | F | 2 | Magdalena Dorothea von Windheim | d. 1658 | body on a catafalque, on a pillow, under the head and in folded hands sprigs of herbs | Stankiewicz 2015, 105 |
| H103 | Germany, Lower Saxony | Dresden (currently Rijksmuseum Amsterdam) | coffin portrait | F | 20 | Anna Maria Landsberger | d. 1664 | the deceased in her coffin, with a small wreath on her head, similar wreaths arranged around her pillow, on her dress and on the coffin lid covered with a cloth, also on the lid spatial crowns of flowers, laurel leaves and pearls, an angel emerges from the clouds with a laurel wreath and palm tree in his hands | Dürr 1664 |
| H104 | Germany, Lower Saxony | Freiberg, cathedral, 'Grünen Friedhof' cemetery | cemetery burials | NN | child | grave 70, 119, 120 | 17th-18th c. | in three children's graves crowns (?) or wreaths with a base of wood, bound with copper wire, decorated with gilded cloves and silk flowers | Schubert 2014, 220-228 |
| H105 | Germany, Lower Saxony | Freiberg, cathedral, 'Grünen Friedhof' cemetery | cemetery burial | NN | child | grave 117 | 17th-18th c. | a wooden box was buried near the foot of the coffin, containing a decoration of artificial flowers and fragments of natural plants | Schubert 2014, 220-228 |
| H106 | Germany, Lower Saxony | Görlitz, St Nicholas Church | crypt burial | ND | ND | crypts Storch/ Göldner | 1877-1878 | there are three wreaths on the lid of the coffin: the upper one is made of boxwood twigs (*Buxus sempervirens*), the middle one of fir twigs (*Abies* sp.), the lower one of two species – clubmoss (*Lycopodium clavatum*) and bank haircap moss (*Polytrichum formosum*) | Ströbl and Vick 2010, 48-52; Ströbl *et al.* 2014 |
| H107 | Germany, Lower Saxony | Lüneburg, Lüne Abbey, crypt under the Chapel of St Barbara | crypt burial | F | *senilis* | Dorothea von Meding, coffin 9 | d. 1634 | coffin filling layer about 2 cm thick: mainly common hop (*Humulus lupulus* L.) – stem fragments, fruit and female flowers; small bouquet placed directly on the clothing – composition unknown | Ströbl and Vick 2005, 17-26, 2007, 45-55, 2011, 97-104; Wiethold 2005, 27-33 |

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|---|---|---|---|---|---|---|---|---|---|
| H108 | Germany, Lower Saxony | Lüneburg, Lüne Abbey, crypt under the Chapel of St Barbara | crypt burial | F | *senilis* | Catharina Margaretha von Estorff, coffin 10 | d. 13 January 1659 | in the shoulder area a ribbon with bouquets hanging from it – on the right shoulder and on the chest on the right side, bouquet with a black bow, preserved stems of unidentified plants | Ströbl and Vick 2005, 17-26, 2007, 45-55, 2011, 97-104; Wiethold 2005, 27-33 |
| H109 | Germany, Lower Saxony | Lüneburg, Lüne Abbey, crypt under the Chapel of St Barbara | crypt burial | F | *senilis* | Johanna Dorothea Maria von Estorff, coffin 8 | d. August 1680 | 4 samples from the lining of the coffin bottom: two from around the head, one from the area on the left side of the corpse, one from around the leg area to the left of the lower leg – all of them contained leaves, flowers,fruit, fragments of stalks, inflorescences of common hop (*Humulus lupulus* L. ); a sample from the lining, from the centre of the coffin on the left side of the corpse contained 3 fragments of rye (*Secale* L.) ears and 3 whole ears of rye (*Secale* L.), ca. 8 husked grains of oats (*Avena sativa* L.), a grain and a whole ear of oats (*Avena strigosa* Schreb.), a fragment of barley husk (*Hordeum* L.) | Ströbl and Vick 2005, 17-26, 2007, 45-55, 2011, 97-104; Wiethold 2005, 27-33 |
| H110 | Germany, Lower Saxony | Lüneburg, Lüne Abbey, crypt under the Chapel of St Barbara | crypt burial | F | *senilis* | Eleonore Margaretha von Harling, coffin 6 | d. 14 March 1759 | filling of the coffin bottom – wood shavings | Ströbl and Vick 2005, 17-26, 2007, 45-55, 2011, 97-104; Wiethold 2005, 27-33 |
| H111 | Germany, Lower Saxony | Lüneburg, Lüne Abbey, crypt under the Chapel of St Barbara | crypt burial | F | *senilis* | Caroline von der Wense, coffin 4 | d. 1838 | filling of coffin bottom – carpentry waste – dowels and wood fragments | Ströbl and Vick 2005, 17-26, 2007, 45-55, 2011, 97-104; Wiethold 2005, 27-33 |
| H112 | Germany, Lower Saxony | Rysum, castle | portrait on catafalque | ND | ND | NN | ca. 1659 | body and cushion sprinkled with bay leaves and conifer twigs, red roses and carnations, in folded hands an artificial red and white flower, on the head a green wreath with a bicolour amulet | Stankiewicz 2015, 104 |
| H113 | Germany, Mecklenburg-Vorpommern | Bad Doberan, cathedral | gravestone | F | 17 | Duchess Anna von Mecklenburg | d. 7 September 1464, gravestone created ca. 1500 | a standing figure surrounded by architecture, wearing a rich dress, her hair loose, on her head a diadem (ornament) with ostrich feathers, in her hands a red rose | Stankiewicz 2015, 97 |
| H114 | Germany, Mecklenburg-Vorpommern | Bützow, parish church | burials | ND | ND | ND | 16$^{th}$-19$^{th}$ c. | 21 crowns per 174 graves, wreaths of bay laurel (*Laurus nobilis*) | Lippok 2009, 32, cat. 144 |
| H115 | Germany, Mecklenburg-Vorpommern | Friedland, St Mary's Church | burials | ND | ND | ND | 16$^{th}$-19$^{th}$ c. | 4 wreaths per 13 graves, boxwood in wreaths (*Buxus sempervirens*) | Lippok 2009, 32, cat. 161 |
| H116 | Germany, Mecklenburg-Vorpommern | Mirow, Johanniterkirche | crypt burial | M | 75 | Karl II., Herzog zu Mecklenburg--Strelitz | 1816 | bottom of coffin covered with common hop lining, white paper residue on the surface of the plant layer | Ströbl 2011a, 2011b, 54-55 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| H117 | Germany, Mecklenburg-Vorpommern | Mirow, Johanniterkirche | crypt burial | M | 81 | Georg, Großherzog von Mecklenburg-Strelitz | 1860 | on the bottom of the coffin a layer of herbs, twigs and leaves, under it a layer of paper, covered with linen cloth, on the right side of the cushion oak leaves – remains of a wreath?, on the left side of the body a palm branch, in the area of the right thigh laurel leaves, between the lower limbs twigs bound with thread | Ströbl 2011a, 2011b, 55-56 |
| H118 | Germany, Mecklenburg-Vorpommern | Mirow, Johanniterkirche | crypt burial | F | ND | NN | 19th c. | seagrass on the bottom of the coffin, on either side of the body a long palm branch, between the lower limbs the remains of a wreath made of various leaves and twigs, including laurel branches | Ströbl 2011a, 2011b, 55-57 |
| H119 | Germany, Mecklenburg-Vorpommern | Neubrandenburg, Church of St Mary | cemetery burials | F, M | ND | ND | 16th to the first three decades of the 19th century | 11 wreaths per 115 graves, the wreaths contained dried flowers of spice clove (*Syzygium aromaticum*), juniper berries (*Juniperus* sp.) and artificial flowers | Lippok 2009, 32 cat. 177; Jänicke 1999 |
| H120 | Germany, Mecklenburg-Vorpommern | Penkun, church cemetery | burials | ND | ND | NN | 18th-19th c. | 2 grave wreaths, conifer branches (cat. nos. 282, 284), boxwood (*Buxus sempervirens*) twigs (cat. no. 282) | Lippok 2009, 32, cat. 282, 284 |
| H121 | Germany, Mecklenburg-Vorpommern | Röbel, St Nicholas Church | cemetery burial | NN | ca. 7 | NN | NN | a burial crown on the head, in the form of a cap of silk (?) to which were attached elements of copper wire (?) and twigs with flowers and leaves of boxwood (*Buxus sempervirens*) | Schmidt 2008, 225 |
| H122 | Germany, Mecklenburg-Vorpommern | Rostock, former Abbey of St Catherine | burial | ND | ND | grave 65 | 16th to early 19th century | boxwood (*Buxus sempervirens*) attached to a hoop made of fabric with a metal braided thread | Lippok 2007, 259, 2009, cat. 249 |
| H123 | Germany, Mecklenburg-Vorpommern | Rostock, former Abbey of St Catherine | burials | ND | ND | ND | second third of the 16th century-last third of the 17th century | 10 grave wreaths per 166 graves, conifer twigs, artificial flowers | Lippok 2009, 33, cat. 252 |
| H124 | Germany, Mecklenburg-Vorpommern | Wolgast, St Petri church | crypt burial | M | 45 | Philipp I. Herzog von Pommern-Wolgast | d. 14 February 1560 | coffin damaged and looted, bundles of tarred brushwood preserved, used to absorb moisture | Ströbl 2011b, 58 |
| H125 | Germany, Mecklenburg-Vorpommern | Wolgast, St Petri church | crypt burial | M | 47 | Ernst Ludwig Herzog von Pommern-Wolgast | d. 17 June 1592 | at the bottom of the coffin a layer of dry organic matter deposited on a sheet of velvet | Ströbl 2011b, 59 |
| H126 | Germany, Mecklenburg-Vorpommern | Wolgast, St Petri church | crypt burial | F | 70 | Sophia Hedwig von Braunschweig-Wolfenbüttel, Herzogin von Pommern-Wolgast | d. 30 January 1631 | on the body visible remains of a bouquet or wreath – gilded cloves, nuts, leaves | Ströbl 2011b, 60 |
| H127 | Germany, Mecklenburg-Vorpommern | Wolgast, St Petri church | crypt burial | M | 41 | Philipp Julius Herzog von Pommern-Wolgast | d. 6 February 1625 | bottom of the coffin with layer of plant matter, covered with silk | Ströbl 2011b, 61 |

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|---|---|---|---|---|---|---|---|---|---|
| H128 | Germany, North Rhine-Westphalia | Marienmünster, abbey church | church burial | M | NN | Widukind I von Schwalenberg | d. 1136/1137 | on the chest a wreath of wild rose twigs (*Rosa canina* L.) | Sanke 2012, 479 |
| H129 | Germany, Rhineland-Palatinate | Mainz, Cathedral of Saints Martin and Stephen, west choir | church burial | M | ca. 41 | Aribo, Archbishop of Mainz | d. 6 April 1031 | body wrapped in cord with attached laurel twigs (*Laurus nobilis*) | Sanke 2012, 479 |
| H130 | Germany, Rhineland-Palatinate | Nassau, castle church, crypt of the Dukes of Nassau | burial | M | 50 | Wilhelm Heinrich von Nassau-Saarbrücken | d. 27 July 1768 buried: 29 July 1768 | fragments of shroud, skull cut open, brain removed, silk cloth under head, cushion filled with herbs, interior of body contained resins and plant remains soaked in essential oils, cushion: common oregano (*Origanum vulgare*) – flowers, thyme (*Thymus vulgaris* L.) – flowers, seeds | Rosinski 2007 |
| H131 | Germany, Rhineland-Palatinate | Nassau, castle church, crypt of the Dukes of Nassau | burial | M | 49 | Ludwig von Nassau | d. 2 March 1794 | samples: from pillow, mattress, organic matter lying on the body and on both sides of the body; pillow: wormwood (*Artemisia absinthium*) – flowers, common houseleek (*Sempervivum tectorum*) – leaves, seeds, laurel (*Laurus nobilis*) – fruit, mint (*Mentha* spec.) – flowers (pennyroyal?), sage (*Salvia officinalis*) – leaves, flowers, common horehound (*Marrubium vulgare*) – stems, flowers, leaves, coffin lining: common oregano (*Origanum creticum*) – flowers, rosemary (*Rosmarinus officinalis*) – leaves, flowers, unspecified place in coffin: rue (*Ruta graveolens*) – leaves | Rosinski 2007 |
| H132 | Germany, Rhineland-Palatinate | Oppenheim, St Bartholomew's Church | crypt burial | M | NN | NN | 1760s | deceased in coffin resting on wood shavings, cross, rosary | Kotzur 1992, 31 |
| H133 | Germany, Rhineland-Palatinate | Oppenheim, St Bartholomew's Church | crypt burial | F | NN | NN | 1760s | fir coffin, bedding and cushions filled with wood shavings | Kotzur 1992, 30 |
| H133 | Germany, Saxony | Ebersbach | gravestone | F | 15 | Judith Maria von Salza | d. 1610 | girl kneels at a table holding a vase with a bouquet of anemones, a wreath of anemones on her head, hands folded over her heart | Stankiewicz 2015, 100 |
| H134 | Germany, Saxony | Hähnichen, Lutheran church | gravestone | M | 3 | Hans Christoph Schurtz | d. 1670 | a boy with a wreath on his head, a prayer book in one hand, fruit in the other, an amphora with a bouquet of roses on a table, a broken rose blossom under the table, a skull with tibias at boy's feet, an hourglass, a moth, a stalk with a flower, leaves and pumpkin fruit growing out from behind the skull, festoons with pomegranate fruit, grapes, apples, pears, pumpkins and nuts | Stankiewicz 2015, 117 |
| H135 | Germany, Saxony-Anhalt | Naumburg/Salle – Schulpforte, Church of St Mary and St John the Baptist at the Cistercian Abbey | sarcophagus with effigy | M | 21 | Georg, Markgraf von Meißen und Landgraf von Thüringen | d. 1401 | armour with floral ornaments and lime leaves, diadem on head | anonymous, early XV c. *Tumba Georgs, Markgraf von Meißen und Landgraf von Thüringen...* |
| H136 | Germany, Saxony-Anhalt | Thaldorf, St Wenceslas Church, cemetery | burial | NN | child | grave no. 1 | mid-17th century – mid-19th century | boxwood (*Buxus sempervirens*) – leaves, spruce/larch (*Picea/Larix*) – wood fragments | Schafberg 2006; Hellmund 2006 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| H137 | Germany, Saxony-Anhalt | Thaldorf, St Wenceslas Church, cemetery | burial | NN | child | grave no. 4 | mid-17th century – mid-19th century | boxwood (*Buxus sempervirens*) wreath – leaves, tied with a silk cloth ribbon, in the lower leg area apothecary vessels containing a willow-based diaphoretic ointment (*Salix* L.) | Schafberg 2006; Hellmund 2006 |
| H138 | Germany, Saxony-Anhalt | Thaldorf, St Wenceslas Church, cemetery | burial | NN | ND | grave no. 14a | mid-17th century – mid-19th century | boxwood wreath (*Buxus sempervirens*) | Schafberg 2006; Hellmund 2006 |
| H139 | Germany, Saxony-Anhalt | Thaldorf, St Wenceslas Church, cemetery | burial | NN | ND | grave no. 30a | mid-17th century – mid-19th century | boxwood wreath (*Buxus sempervirens*) | Schafberg 2006; Hellmund 2006 |
| H140 | Germany, Saxony-Anhalt | Thaldorf, St Wenceslas Church, cemetery | burial | NN | child | grave no. 5 | mid-17th century – mid-19th century | boxwood (*Buxus sempervirens*) – leaves, spruce/larch (*Picea/Larix*) – wood fragments | Schafberg 2006; Hellmund 2006 |
| H141 | Germany, Saxony-Anhalt | Thaldorf, St Wenceslas Church, cemetery | burial | NN | foetus | grave no. 8 | mid-17th century – mid-19th century | a small bouquet of artificial flowers and dried flowers of the spice clove tree (*Syzygium aromaticum*), remnants of a grave crown made of willow (*Salix* L.) | Schafberg 2006; Hellmund 2006 |
| H142 | Germany, Saxony-Anhalt | Thaldorf, St Wenceslas Church, cemetery | burial | NN | NN | grave no. 27 | mid-17th century – mid-19th century | boxwood (*Buxus sempervirens*) – leaves | Schafberg 2006; Hellmund 2006 |
| H143 | Germany, Saxony-Anhalt | Thaldorf, St Wenceslas Church, cemetery | burial | F | adult | grave no. 57 | mid-17th century – mid-19th century | filling of the bottom of the coffin: barley (*Hordeum vulgare* L.) with straw, fragments of ear, fragments of pods of an unidentified plant from the *Fabaceae* family | Schafberg 2006; Hellmund 2006 |
| H144 | Germany, Saxony-Anhalt | Thaldorf, St Wenceslas Church, cemetery | burial | M | adult | grave no. 59 | mid-17th century – mid-19th century | 9 fragments of walnut flesh (*Juglans regia* L.) | Schafberg 2006; Hellmund 2006 |
| H145 | Germany, Saxony-Anhalt | Zeitz, St Peter and Paul Cathedral | church burial – southern nave | F | ca. 60 | grave no. 165 – Sibylla von der Ölßnitz? | summer, after 1601 – before 1676 | wreath of boxwood (*Buxus sempervirens*) and willow (*Salix* L.) (or a bouquet of boxwood and conifer twigs) arranged on the coffin lid, a ring bearing the date 1601, lining – hay or straw | Klamm and Schulz 2012, 415-434 |
| H146 | Germany, Saxony-Anhalt | Zeitz, Museum Schloss Moritzburg | posthumous portrait | M | 4 months | Johann Philipp von Sachsen-Zeitz | d. 1652 | wreath with inscription "HS" ("Herzog zu Sachsen") and rosemary sprigs, robe and cushion – floral patterns, on the chest crucifix in rosemary wreath with inscription (illegible) | anonymous, 1651-1652, *Totenbildnis des Prinzen Johann Philipp von Sachsen-Zeitz...* |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| H147 | Germany, Saxony-Anhalt | Zeitz, Museum Schloss Moritzburg | posthumous portrait | M | 7 months | Moritz von Sachsen-Zeitz | d. 1653 | wearing a rosemary wreath, with the inscription "HS" ("Herzog zu Sachsen") on his head, robe and cushion – floral patterns, on his chest a crucifix in a rosemary wreath with the inscription "IEIHSADAM-VIH" | anonymous, 1652-1653, *Totenbildnis des Prinzen Moritz von Sachsen-Zeitz* Fig. 42 |
| H148 | Germany, Saxony-Anhalt | Zeitz, Museum Schloss Moritzburg | coffin portrait | M | 1 | Johann Georg von Sachsen-Zeitz | d. 1666 | a boy in a coffin, behind a curtain, wearing a rosemary wreath on his head, two red flowers in his hands folded on his abdomen, in the foreground a cartouche with an inscription and a skull, above the deceased two cupids playing with bubbles | Schäffer 1666 |
| H149 | Germany, Saxony-Anhalt | Zeitz, Museum Schloss Moritzburg | coffin portrait | F | ca. 5 months | Magdalena Sybilla von Sachsen-Zeitz | d. 1672 | a girl depicted in a coffin, behind a curtain; in the foreground, in the central part, a cartouche framed by a tibia and a skull, with an inscription and an hourglass; to the left of the cartouche, a kneeling angel supports a portrait of the deceased in an oval frame, on the right a pot with a pink carnation, in the hands of the deceased two red carnations, which are held in the hand of another angel, turning towards the open heavens, in which angelic figures can be seen emerging from the clouds | Schäffer 1672 Fig. 17 |
| H150 | Germany, Saxony-Anhalt | Zeitz, Museum Schloss Moritzburg | coffin portrait | M | 25 | Wilhelm III. von Sachsen-Altenburg | d. 14 April 1672 | a man wearing a green wreath on his head, decorated with jewels, in his hands folded on his abdomen a cross entwined with green twigs? and jewels with the inscription "IHS" arranged with pearls or beads | Glöckner 1672 Fig. 1 |
| H151 | Germany, Saxony-Anhalt | Zeitz, Museum Schloss Moritzburg | coffin portrait | K | 33 years, 7 months, 3 weeks, 6 days, 17 h | Dorothea Maria von Sachsen-Zeitz | d. 11 June 1675 | woman in white dress, wearing a headpiece, depicted in an open coffin, sprinkled with flowers of pink roses; rose flowers cut short with leaves and stems, one in folded hands | Schäffer 1675 Fig. 10 |
| H152 | Germany, Saxony-Anhalt | Zeitz, Museum Schloss Moritzburg | coffin portrait | M | 10 | Friedrich August von Sachsen-Zeitz | d. 1710 | a boy in a coffin, behind the headboard a bouquet of red roses in a vase, against the curtain, to the left on a table decorated with a skull motif a burning candle, above the boy's head an angel holding a crown | anonymous, 1710, *Totenbildnis Prinz Friedrich August von Sachsen-Zeitz...* |
| H153 | Germany, Schleswig-Holstein | Jellenbek, St Catherine's Church (no longer extant) | burial | F | ND | NN | | pillow filled with herbs | Grüneberg-Wehner and Wehner 2012, 227-236 |
| H154 | Germany, Schleswig-Holstein | St Catherine's Church (no longer extant) | burial | M | ND | Petrus Struve – clergyman | d. 14 April 1724 | fragments of a burial crown made of wire elements, textiles and plants | Grüneberg-Wehner *et al.* 2011, 173-183 |
| H155 | Germany, Schleswig-Holstein | Gettorf, St Jürgen Church | burial | F | ca. 32 | Brigitte von Ahlefeldt | d. 20 June 1632 | pillow filled with common hop | Zöllner 1974, 180-215; Ströbl and Vick 2009: 316 |

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|---|---|---|---|---|---|---|---|---|---|
| H156 | Germany, Schleswig-Holstein | Gettorf, St Jürgen Church | crypt burial | M | adult | Detlev von Ahlefeld zu Lindau | d. 1644 | probably the filling of the pillow or mattress was common hop, remains of a veil of black fabric similar to gauze were found among the plant remains | Zöllner 1974, 188; Karg 2001, 2012; Ströbl and Vick 2009, 316 |
| H157 | Germany, Schleswig-Holstein | Gettorf, St Jürgen Church | crypt burial | F | | Elisabeth von Ahlefeldt | d. 1627 | coffin lining of dry twigs | Zöllner 1974, 191; Karg 2001, 2012 |
| H158 | Germany, Schleswig-Holstein | Schleswig, Rathausmarkt | burial | M | adult | grave 180 | 1088 (dendrochronological dating) | coffin fully preserved, body wrapped in a shroud, possibly a delicate shawl on the face, plant remains | Hägg 1997, 85-146 |
| H159 | Germany, Schleswig-Holstein | Schleswig, Rathausmarkt | burial | ND | 5-6 | grave 27 | 1089 (dendrochronological dating) | coffin fully preserved, the body wrapped in a shroud, remnants of which were found in the lower limbs, the face covered with a softer fabric, around and on the skull and on the abdomen fragments of a third fabric with which the deceased must have been covered, blades of straw at the bottom of the coffin, covered with linen, under the head a bundle of grass, bent into a sigmoid shape – a wreath?, other plant remains are found on the body and in the area around the upper half of the body | Hägg 1997, 85-146 |
| H160 | Germany, Schleswig-Holstein | Schleswig, Rathausmarkt | burial | M | adult | grave 32 | 1095 (dendrochronological dating) | coffin fully preserved, body wrapped in a shroud, possibly wearing a shirt, the face covered with a fine fabric which was spread to the level of the clavicles, fragments of another fabric preserved on the skull, possibly parts of a headdress, unidentified plant remains in the head area | Hägg 1997, 85-146 |
| H161 | Germany, Schleswig-Holstein | Schleswig, Rathausmarkt | burial | F | adult | grave 38 | 1105 (dendrochronological dating) | coffin lined with grass and brushwood; two types of fabric have been preserved, probably a face cloth and a shroud to cover the body | Hägg 1997, 85-146 |
| H162 | Germany, Schleswig-Holstein | Schleswig, Rathausmarkt | burial | NN | 1 year 6 months | grave 77 | 1107 (dendrochronological dating) | coffin fully preserved, the body was covered with a delicately woven cloth, a thicker cloth was placed over it, the deceased was wearing a shirt, under the head a bundle of field horsetail (*Equisetum arvense* L.), bent into a sigmoid shape | Hägg 1997, 85-146 |
| H163 | Germany, Schleswig-Holstein | Schleswig, Rathausmarkt | burial | NN | 5-6 | grave 22 | 1125 (dendrochronological dating) | the lid of the coffin has not been preserved, the body was wrapped in two types of cloth of different thickness, at the bottom of the coffin were stalks and parts of yarrow (*Achillea millefolium* L.), the plants were also directly under the body, on the shroud | Hägg 1997, 85-146 |
| H164 | Germany, Schleswig-Holstein | Schleswig, currently Landes- und Hochschulbibliothek Darmstadt | catafalque portrait | M | 62 | Friedrich III. von Schleswig-Holstein-Gottorp | d. 10 August 1659 in Tönning | a sprig of rosemary in folded hands | Kügler 2003, 440 Fig. 24 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| H165 | Germany, Thuringia | Altenburg (currently Landes – und Hochschulbibliothek Darmstadt and Residenzschloss Altenburg, crypt in castle church) | portraits in coffins | M | 9 | Christian von Sachsen-Alten-burg | d. 1663 | long gown, embroidered with gold flowers, on the cushion scattered rosemary branches and flowers (roses?), on either side of her head wreaths – one of rosemary (according to the preserved description) – decorated with pearls and diamonds, the other of two-coloured roses, a wreath on the head, consisting of twigs and flowers, in folded hands a cross entwined with rosemary, diamonds and pearls, with inscriptions: "IHS" and "1663" | Kügler 2003, 44; Stankiewicz 2015, 103 Fig. 2, 3 |
| H166 | Germany, Thuringia | Altenburg, (currently Residenzschloss Altenburg, crypt in castle church) | portrait in a coffin | F | 51 | Magdalene Sybille von Sachsen–-Alt-enburg | d. 6 January 1668 | with a cross of green branches in her hands, at the foot of the coffin an angel with a cartouche with an inscription, near the headboard a fragment of a twisted column with a grapevine motif | Glöckler 1668, *Herzogin Magdalene Sybille von Sachsen-Altenburg im Sarg...* |
| H167 | Germany, Thuringia | Todenwarth | gravestone | F | 2 months | Anna Catharina von Röder | 17th c. | in her hands a withered rose from which the petals are falling | Stankiewicz 2015, 98 |
| H168 | Germany, Thuringia | Waltersleben, parish church | painted epitaph | F, M | NN | Moller siblings | ca. 1713 | two girls and a boy wearing green wreaths on their heads kneel around the crucified Christ, above them an angel holding a golden crown, the scene is set in a frame of palm branches, at the bottom of the epitaph a skull with tibias and blades of grass | Neumann (Hrsg.) 2007, 207, 212 |
| H169 | Germany, Thuringia | Weimar (currently Nuremberg, Germanisches Nationalmuseum) | coffin portrait | M | 40 | Duke Friedrich Wilhelm I von Sachsen-Weimar-Altenburg | d. 17 July 1602 | coffin portrait, floor around the deceased covered with cut flowers – lily of the valley, anemones, carnations, tulips, irises, roses | Ulrich, Hochheimer 1602, *Bildnis des Herzogs Friedrich Wilhelm I. von Sachsen-Weimar-Altenburg...* |
| H170 | Germany, Thuringia | Weimar, currently Nuremberg, Germanisches Nationalmuseum | coffin portrait | M | 35 | Johann II., Duke of Sachsen-Weimar | d. 18 July 1605 | coffin portrait, floor around the deceased covered with cut flowers – lily of the valley, anemones, carnations, tulips, irises, roses | Ulrich, Hochheimer 1605, *Bildnis des Herzogs Johann II. von Sachsen-Weimar auf dem Totenbett...* |
| H171 | Germany, Thuringia | Weimar [currently castle Skokloster (Sweden)] | catafalque portrait | M | 64 | Wilhelm von Sachsen-Weimar | d. 17 May 1662, burial 24 May 1662 | a man on a catafalque, covered with black fabric, with his head on a black-coloured cushion, in his hands a bouquet of natural flowers, around his body on the bedding – cut roses and tulips, near his legs are presented attributes – armour, geometrical instruments, books, architectural plans, in the background an angel emerging from a cloud with a crown in his right hand and a palm branch in his left hand | anonymous, 1662, *Porträit, Wilhelm av Sachsen-Weimar...* Fig. 91 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| I1 | Lithuania, Kaunas County | Kaunas, Pažaislis monastery | posthumous portrait | M | 1 month | son of Grand Chancellor of Lithuania Krzysztof Zygmunt Pac and Klara de Mailly-Laskaris | d. 1661 | a baby in a white cap and swaddles, with a cross on its chest, placed on red cushions, against a background of a lily-patterned fabric curtain, beside the body a bouquet of orange and rose flowers | anonymous, 1661, *Posthumous portrait of the son...* Fig. 38 |
| I2 | Lithuania, Vilnius County | Trakai, Church of the Visitation of the Blessed Virgin Mary | church burial | ND | ND | grave 63 | 2nd half of the 17th century – early 18th century | parsley-piert genus (*Aphanes* sp.), common sedge (*Carex nigra*), common buttercup (*Raunculus acris*), moss twigs, grass spike fragments, horsetail stem fragment (*Equisetum arvense* L.) | Drążkowska (red.) 2015, 312 |
| I3 | Lithuania, Vilnius County | Trakai, Church of the Visitation of the Blessed Virgin Mary | church burial | ND | ND | grave 11 | 2nd half of the 17th century – early 18th century | mosses, grass remains, sedge (*Carex*), beaked sedge (*Carex rostrata*) | Drążkowska (red.) 2015, 312 |
| I4 | Lithuania, Vilnius County | Trakai, Church of the Visitation of the Blessed Virgin Mary | church burial | ND | ND | grave 10 | 2nd half of the 17th century – early 18th century | coffin-bottom lining: beaked sedge (*Carex rostrata*); acute sedge (*Carex gracilis*); common spike-rush (*Eleocharis palustris/uniglumis*); masterwort (*Peucedanum* sp.) – fruit; parsley-piert (*Aphanes* sp.); grasses (*Poaceae*) – flowers; peat twig; *Compositae* (*Asteraceae*) – inflorescence fragment | Drążkowska (red.) 2015, 313 |
| I5 | Lithuania, Vilnius County | Trakai, Church of the Visitation of the Blessed Virgin Mary | church burial | ND | ND | grave 9 | 2nd half of the 17th century – early 18th century | plants in grave | Drążkowska (red.) 2015, 312-313 |
| I6 | Lithuania, Vilnius County | Trakai, Church of the Visitation of the Blessed Virgin Mary | church burial | ND | ND | grave 7 | 2nd half of the 17th century – early 18th century | pillow: slim sedge (*Carex gracilis*) – fruit, ear fragment; hairy sedge (*Carex hirta*); white clover (*Trifolium repens*) – flower; red clover (*Trifolium pratense*) – flower, petals; purple marshlocks (*Comarum palustre*); common self-heal (*Prunella vulgaris*); common bracken (*Pteridium aquilinum*); moss | Drążkowska (red.) 2015, 312 |
| I7 | Lithuania, Vilnius County | Trakai, Church of the Visitation of the Blessed Virgin Mary | church burial | ND | ND | grave 3 | 2nd half of the 17th century – early 18th century | grasses, unmarked | Drążkowska (red.) 2015, 313 |
| J1 | Poland, Greater Poland Voivodeship, Poznań County | Poznań, Church of St Anthony of Padua at the Franciscan monastery | coffin portrait | K | ND | ND | 1790s | girl depicted as an adult, curled hair, jewellery, rich dress, small wreath of rue (?) on top of head | Dziubkowa 1996, 299, cat. 248 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J2 | Poland, Kuyavian-Pomeranian Voivodeship, Bydgoszcz County | Byszewo, Koronowo municipality, Holy Trinity Church | crypt burial | NN | up to 1 year | NN | 18th-19th c. | wreath of green twigs and silk ribbons, lining of plants and shavings, cushion: pollen of common mugwort (*Artemisia*), mint (*Mentha*) and *Umbelliferae* (*Apiaceae* indet.),<br>macro botanical remains:<br>common hop (*Humulus lupulus*) – female inflorescences, stinking chamomile (*Anthemis cotula*) – fruit, burnet-saxifrage (*Pimpinella saxifraga*), flax (*Linum usitatissimum*), plants of *Polygonum* genus (*Polygonum* sp.), *Umbelliferae* (*Apiaceae*), grasses (*Poaceae*), mallows (*Malvaceae*) – perianth, rosemary (*Rosmarinus officinalis*) – leaf fragments, moss residues, fungal spores, unspecified vegetative parts of herbaceous plants | Jarosińska *et al.* 2019, 187-197 |
| J3 | Poland, Kuyavian-Pomeranian Voivodeship, Bydgoszcz County | Byszewo, Koronowo municipality, Holy Trinity Church | burials in crypt under the church | ND | ND | ND | 18th-19th c. | elderberry (*Sambucus nigra* L.), oak (*Quercus* sp.), wood chervil (*Anthriscus sylvestris* L.), St John's wort (*Hypericum perforatum* L.), coriander (*Coriandrum sativum* L.), bulrush (*Juncus* sp.), burnet-saxifrage (*Pimpinella saxifraga* L.), motherwort (*Leonurus cardiaca* L.), stinking chamomile (*Anthemis cotula* L.), field mint (*Mentha arvensis* L.), yellow chamomile (*Anthemis tinctoria* L.), catnip (*Nepeta* sp.), field mugwort (*Artemisia* cfr *campestris* L.), rosemary (*Rosmarinus officinalis* L.), mugwort (*Artemisia* sp.), woodland sage (*Salvia nemorosa* L.), cornflower (*Centaurea cyanus* L. undiff.), mouse-ear hawkweed (*Hieracium pilosella* L.), flax (*Linum usitatissimum* L.), hazel (*Corylus avellana* L.), common mallow (*Malva sylvestris* L.), boxwood (*Buxus sempervirens* L.), brome (*Bromus* sp.), common bugloss (*Anchusa officinalis* L.), rye (*Secale cereale* L.), goosefoot (*Chenopodium* sp. undiff. ), hemp seed (*Cannabis sativa* L.), water pepper (*Polygonum hydropiper* L.), common hop (*Humulus lupulus* L.), marsh dock (*Rumex palustris* Sm.), common juniper (*Juniperus communis* L.), bird cherry (*Cerasus avium* (L.) Moench)/cherry (*Cerasus vulgaris* Mill.), common spike-rush (*Eleocharis palustris* L. Roem. & Schult./ *E. uniglumis* (Link) Schult.), domestic plum (*Prunus domestica* L.), bracken (P*teridium aquilinum* (L.) Kuhn), black henbane (*Hyoscyamus niger* L.), white clover (*Trifolium repens* L.), field pansy (*Viola arvensis* Murray)/wild pansy (*Viola tricolor*) | Jarosińska 2019 |
| J4 | Poland, Kuyavian-Pomeranian Voivodeship, Inowrocław County | Płonkowo, municipality of Rojewo, St Oswald's Church | cemetery burial | F | NN | NN | 14th c. | relics of a metal diadem on the skull | Grupa *et al.* 2015, 39-40 |
| J5 | Poland, Kuyavian-Pomeranian Voivodeship, Inowrocław County | Płonkowo, municipality of Rojewo, St Oswald's Church | crypt burial B | ND | ND | ND | 16th c. | fragment of a pomander in burial | Grupa *et al.* 2015, 35 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J6 | Poland, Kuyavian-Pomeranian Voivodeship, Mogilno County | Słaboszewo, municipality of Dąbrowa, church of St Dorothy | cemetery burial | F | *iuvenis* | NN | 1st half of the 15th c. | brown braided headband on skull | Drążkowska 2012, 117; Słomczewska 1994, quoted by: Grupa *et al.* 2015, 40-41 |
| J7 | Poland, Kuyavian-Pomeranian Voivodeship, Mogilno County | Strzelno, Norbertine Monastery, Basilica of the Holy Trinity and the Blessed Virgin Mary | church burial – transept | K | ca. 60 | G-11/2001 | late 16th–17th c. | burial in a coffin, under the head and on the right side of the skull seeds (remains of a cushion?): curly dock (*Rumex crispus* L.), bracken (*Pteridium aquilinum* (L.) Kuhn), common oregano (*Origanum vulgare* L.), common chicory (*Cichorium intybus* L.), caraway (*Carum carvi* L.), *Umbelliferae* (*Apiaceae* indet.), flat sedge (cf. *Blysmus compressus*), fungi (*Fungi* indet.). | Święta-Musznicka *et al.* 2021 |
| J8 | Poland, Kuyavian-Pomeranian Voivodeship, Mogilno County | Strzelno, Norbertine Monastery, Basilica of the Holy Trinity and the Blessed Virgin Mary, transept | church burial | M | 25-30 | G-13/2001 | 17th-18th c. | burial in a coffin, a strip of spilled seeds of common millet (*Panicum miliaceum* L.), grass (*Echinochloa-crus galli* L.), birch (*Betula alba*) – pollen, fungi (*Fungi* indet.) | Święta-Musznicka *et al.* 2021 |
| J9 | Poland, Kuyavian-Pomeranian Voivodeship, Mogilno County | Strzelno, Norbertine Monastery, Basilica of the Holy Trinity and the Blessed Virgin Mary, nave | church burial | M | ca. 66 | prebendary Mikołaj Ignacy Łukowski | d. 24 April 1736 | burial in a coffin, horse chestnut (*Aesculus hippocastanum* L.), wild radish (*Raphanus raphanistrum* L.), horse chestnut flowers on the body | Sulkowska-Tuszyńska 2010, 419; Święta-Musznicka *et al.* 2021 |
| J10 | Poland, Kuyavian-Pomeranian Voivodeship, Mogilno County | Strzelno, Norbertine Monastery, Basilica of the Holy Trinity and the Blessed Virgin Mary, transept | church burial | NN | 9-12 | G-19/2001 | 1st half of the 17th c., end of summer | burial in a coffin, one whole and six fragments of unripe peach seeds (*Persica vulgaris* L.) | Sulkowska-Tuszyńska 2007, 47, 2010, 419; Święta-Musznicka *et al.* 2021 |
| J11 | Poland, Kuyavian-Pomeranian Voivodeship, Świecie County | Gruczno, gm. Świecie, cemetery | graveyard burial | NN | 5-8 | NN | 14th c. | bronze diadem decorated with geometric ornament – quatrefoils in rhombuses | Drążkowska 2012, 118 |
| J12 | Poland, Kuyavian-Pomeranian Voivodeship, Toruń County | Toruń, St James Church | burial | F | 13-15 | NN | 16th-17th c. | 6 wreaths on the body – on the head, on the chest, on the pelvis – in the hands, two on the knees, at the feet | Chołodowska 2009, quoted by: Grupa *et al.* 2015, 120; Sulkowska-Tuszyńska 2022, 114 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J13 | Poland, Kuyavian-Pomeranian Voivodeship, Toruń County | Toruń, St James Church, church cemetery | cemetery burials | NN | ND | NN | modern era | grave wreaths made of wires, threads, ribbons, herbs, flowers, slats, sequins, grave bouquets made of wires and probably natural flowers, some bouquets-garlands formed on a hoop were placed near the pelvic area; most common were mugwort (*Artemisia*), St John's wort (*Hypericum*), *Compositae* (*Asteraceae*), carnation family (*Caryophyllaceae*), *Labiatae* (*Lamiaceae*), in one grave a bundle of carnations and poppies | Noryśkiewicz *et al.* 2022, 293-294; Sulkowska-Tuszyńska 2022, 113-115 |
| J14 | Poland, Kuyavian-Pomeranian Voivodeship, Toruń County | Toruń, Church of the Assumption of the Blessed Virgin Mary | church burial | K | adult | NN | 18th c. | 11 wreaths, two with sprigs of natural plants (rosemary?) attached to the hoop with string, remnants of paper flowers | Drążkowska 2006, 209-217; Grupa *et al.* 2015, 120 |
| J15 | Poland, Kuyavian-Pomeranian Voivodeship, Toruń County | Toruń, Church of the Assumption of the Blessed Virgin Mary | crypt burial under the altar | F | 57 | Anna Vasa | d. 6 February 1625 | an artificial flower cut from silk, fixed with a rivet to a wooden slat 1 m long, spirally wrapped with silk fabric | Grupa *et al.* 2015, 120; Grupa 2015, 47-53 |
| J16 | Poland, Kuyavian-Pomeranian Voivodeship, Włocławek County | Stary Brześć, municipality of Brześć Kujawski, cemetery | burial | F | 10-12 | NN | 14th c. | 12 bronze appliqués in the form of a quatrefoil found on the skull – may have been attached to a textile or leather band, glass beads on the right side | Drążkowska 2012, 118 |
| J17 | Poland, Kuyavian-Pomeranian Voivodeship, Żnin County | Łabiszyn, Crypt of the Skórzewski Counts under the presbytery of St Nicholas Church | crypt burial under the presbytery | F | 45 | Antonina Skórzewska | d. 13 January 1824 | sweet cherry or cherry stones, chestnut fruit (*Aesculus* L.), palm branch at pelvic level | Kochman 2012; Drozd and Zajączkowska 2010, 85-94 |
| J18 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Wawel Cathedral, chapel of the Holy Cross | crypt burial | M | 65 | Casimir Jagiellon, King of Poland | d. 7 June 1492 in Grodno | tree trunk coffin, partly preserved, covered with linen inside, fragment of brocade fabric with carnation and Italian stone pine cone motifs, sceptre, orb and crown of fine leather, golden ring, sword hilt and scabbard, mugwort (*Artemisia vulgaris*) – inflorescences and leaf found during restoration of the robes in 2010 | Kozieł 1978; Kozłowski 1978; Hryszko 2010 |
| J19 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Carmelite convent in Wesoła district, originally the convent of the Discalced Carmelites at St Martin's Church, Grodzka Street, abolished in 1787 | posthumous portrait | F | adult | mother Beata Konstancja of St Joseph – Konstancja née Myszkowska Bużeńska | d. 14 May 1627 | corpse in habit, toque, black veil and white cloak, sprinkled with flowers | Dziubkowa 1996 |

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|---|---|---|---|---|---|---|---|---|---|
| J20 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B2 | crypt burial under the church | ND | ND | burial no. 1 | 23 June 1714 | mattress:<br>yarrow (*Achillea millefolium* L. S. Str.), *compositae* (*Asteraceae* indet.), *Labiatae* (*Lamiaceae* indet.), masterwort (*Peucedanum* sp.), *grasses* (*Poaceae* indet.), ragwort (*Senecio jacobaea* L.), common tansy (*Tanacetum vulgare* L.), other<br>around the head:<br>*Compositae* (*Asteraceae* indet.), St John's wort (*Hypericum cfr perforatum* L.), grasses (*Poaceae* indet.), rosemary (*Rosmarinus officinalis* L.), common tansy (*Tanacetum cfr vulgare*), other | Pińska, Drążkowska 2020, 81-130 |
| J21 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B2 | crypt burial under the church | ND | ND | burial no. 3 | | cushion:<br>common flax (*Linaria vulgaris* Mill.), ragwort (*Senecio jacobaea* L.), ferns (*Polypodiopsida*), other | Pińska, Drążkowska 2020, 81-130 |
| J22 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B2 | crypt burial under the church | ND | ND | burial no. 4 | 18$^{th}$ c. | mattress:<br>*Compositae* (*Asteraceae* indet.), rosemary (*Rosmarinus officinalis* L.)<br>pillow:<br>*Compositae* (*Asteraceae* indet.), hyssop (*Hyssopus officinalis* L.), prickly sow-thistle (*Sonchus asper* (L.) Hill.).<br>around the head or on the body:<br>*Compositae* (*Asteraceae* indet.), St John's wort (*Hypericum cfr perforatum* L.), grasses (*Poaceae* indet.), rosemary (*Rosmarinus officinalis* L.), prickly sow-thistle (*Sonchus asper* (L.) Hill.)<br>on the body:<br>rosemary (*Rosmarinus officinalis* L.) | Pińska, Drążkowska 2020, 81-130 |
| J23 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B2 | crypt burial under the church | | | burial no. 5 | | pillow:<br>yarrow (*Achillea millefolium* L. S. Str.), *Compositae* (*Asteraceae* indet.), sedge (*Carex* sp.), cornflower (*Centaurea cyanus* L.), common/slender spike-rush (*Eleocharis palustris/uniglumis* (L.) Roem.&Schult./(Link) Schult.), hyssop (*Hyssopus officinalis* L.), field eryngo (*Eryngium* cfr *campestre* L.) | Pińska, Drążkowska 2020, 81-130 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J24 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B2 | crypt burial under the church | NN | child | burial no. 6 | | pillow:<br>oregano (*Origanum vulgare* L.)<br>on the body:<br>rosemary (*Rosmarinus officinalis* L.)<br>chest:<br>*Compositae* (*Asteraceae* indet.), shepherd's purse (*Capsella bursa-pastoris* (L.) Medik.), small-flowered crane's-bill (*Geranium pusillum* Burm. F. Ex L.), hyssop (*Hyssopus officinalis* L.), gypsywort (*Lycopus europaeus* L.), grasses (*Poaceae* indet.), pale persicaria (*Polygonum lapathifolium* L.) | Pińska, Drążkowska 2020, 81-130 |
| J25 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B2 | crypt burial under the church | ND | ND | burial no. 7 | | pillow:<br>*Compositae* (*Asteraceae* indet.), autumn/bristly hawkbit (*Leontodon autumnalis/hispidus* L.), cheeseweed (*Malva neglecta* Wallr.), mallow (*Malva* sp.), oregano (*Origanum vulgare* L.), other | Pińska, Drążkowska 2020, 81-130 |
| J26 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B2 | crypt burial under the church | ND | ND | burial no. 8 | | pillow/mattress:<br>*Compositae* (*Asteraceae* indet.), rosemary (*Rosmarinus officinalis* L.) | Pińska, Drążkowska 2020, 81-130 |
| J27 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B2 | crypt burial under the church | ND | ND | burial no. 9 | | pillow:<br>common lavender (*Lavandula angustifolia*Mill.), moss (*Bryophyte*)<br>around the head:<br>*Compositae* (*Asteraceae* indet.), St John's wort (*Hypericum perforatum* L.), *Labiatae* (*Lamiaceae* indet.), mint (*Mentha* sp.), common ragwort (*Senecio vulgaris* L.), plant of *Senecio* genus (*Senecio* sp.) | Pińska, Drążkowska 2020, 81-130 |
| J28 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B2 | crypt burial under the church | ND | ND | burial no. 10 | | pillow:<br>*Compositae* (*Asteraceae* indet.), common marigold (*Calendula* cfr *officinalis* L.), clustered bellflower (*Campanula* cfr *glomerarta* L.), St John's wort (*Hypericum perforatum* L.), *Labiatae* (*Lamiaceae* indet.), ox-eye daisy (*Leucanthemum vulgare* Lam. S.Str.), cheeseweed (*Malva neglecta* Wallr.), summer savory (*Satureia hortensis* L.), prickly sowthistle (*Sonchus asper* (L.) Hill.), common tansy (*Tanacetum* sp.), thyme (*Thymus* sp.), red clover (*Trifolium pratense* L.), white clover (*Trifolium repens* L.), plant of *Viola* genus (*Viola* sp.), moss (*Bryophyte*), other | Pińska, Drążkowska 2020, 81-130 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J29 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B2 | crypt burial under the church | M | *adultus* | burial no. 11 | | around the head or pillow filling:<br>yellow chamomile (*Anthemis tinctoria* L.), goosefoot (*Chenopodium* sp.), oregano (*Origanum vulgare* L.), grasses (*Poaceae* indet.), common knotgrass (*Polygonum aviculare* L.), common tansy (*Tanacetum* sp.), other<br>chest:<br>common corn-cockle (*Agrostemma githago* L.), dill (*Anethum graveolens* L.), *Compositae* (*Asteraceae* indet.), hemp (*Cannabis sativa* L.), black henbane (*Hyoscyamus niger* L.), St John's wort (*Hypericum cfr perforatum* L.), hyssop (*Hyssopus officinalis* L.), *Labiatae* (*Lamiaceae* indet.), common lavender (*Lavandula angustifolia* Mill.), grasses (*Poaceae* indet.), plant of *Potentilla* genus (*Potentilla* sp.), field sorrel (*Rumex acetosella* L.), common sowthistle (*Sonchus cfr oleraceus* L.), common tansy (*Tanacetum* sp.), plant of *Thymus* genus (*Thymus* sp.), plant of *Viola* genus (*Viola* sp.), other | Pińska, Drążkowska 2020, 81-130 |
| J30 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B3 | crypt burial under the church | M | *maturus* | burial no. 1 | d. 1796 | pillow:<br>corn chamomile (*Anthemis arvensis* L.), shepherd's purse (*Capsella bursa-pastoris* (L.) Medik.), plant of *Consolida* genus (*Consolida* sp.), hyssop (*Hyssopus officinalis* L.), common toadflax (*Linaria vulgaris* Mill.), mint (*Mentha* sp.), opium poppy (*Papaver cfr somniferum* L.), prickly sowthistle (*Sonchus asper* (L.) Hill.), red clover (*Trifolium pratense* L.), plant of *Viola* genus (*Viola* sp.),<br>other pillow:<br>plant of *Consolida* genus (*Consolida* sp.), hyssop (*Hyssopus officinalis* L.), common toadflax (*Linaria vulgaris* Mill.), sage (*Salvia* sp.), other | Pińska, Drążkowska 2020, 81-130 |
| J31 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B3 | crypt burial under the church | M | *maturus-senilis* | Franciszek Bentkowski burial no. 2 | d. 29 April 1789 | pillow:<br>dill (*Anethum graveolens* L), common mouse-ear chickweed (*Cerastium* cfr *holosteoides* Fr. Emend Hyl.), plant of bean family (*Fabaceae* indet.), *Labiatae* (*Lamiaceae* indet.), ox-eye daisy (*Leucanthemum vulgare* Lam. S.Str.), ragged-robin (*Lychnisflos-cuculi* L.), plant of plantains genus (*Plantago* sp.), grasses (*Poaceae* indet.), common self-heal (*Prunella vulgaris* L.), plant of *Raunculus* genus (*Ranunculus* sp.), zigzag clover (*Trifolium cfr medium* L.), clover (*Trifolium* sp.), moss (*Bryophyte*), other | Pińska, Drążkowska 2020, 81-130 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J32 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B3 | crypt burial under the church | M | *maturus* | burial no. 3 | 1775 | pillow:<br>yarow (*Achillea millefolium* L. S. Str.), mugwort (*Artemisia vulgaris* L.), *Compositae* (*Asteraceae* indet.), hoary alyssum (*Berteroaincana* (L.) DC.), cornflower (*Centaurea cyanus* L.), hemp-agrimony (*Eupatorium cannabinunm* L.), St John's wort (*Hypericum* perforatum L.), hyssop (*Hyssopus officinalis* L.), common toadflax (*Linaria vulgaris* Mill.), grasses (*Poaceae* indet.), foxtail (*Setaria* sp.), prickly sowthistle (*Sonchus asper* (L.) Hill.), common tansy (*Tanacetum vulgare* L.) | Pińska, Drążkowska 2020, 81-130 |
| J33 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B3 | crypt burial under the church | M | *maturus-senilis* | burial no. 4 | | pillow:<br>mugwort (*Artemisia vulgaris* L.), *Compositae* (*Asteraceae* indet.), hoary alyssum (*Berteroaincana* (L.) DC.), common marigold (*Calendula officinalis* L.), common chicory (*Cichorium intybus* L.), St John's wort (*Hypericum* crf *perforatum* L. ), *Labiatae* (*Lamiaceae* indet. ), common toadflax (*Linaria vulgaris* Mill.), gypsywort (*Lycopus europaeus* L.), curled mallow (*Malva crispa* L.), grasses (*Poaceae* indet.), sorrel (*Rumex* sp.), common ragwort (*Senecio jacobaea* L.), prickly sowthistle (*Sonchus asper* (L.) Hill.), common tansy (*Tanacetum vulgare* L.), thyme (*Thymus* sp.) | Pińska, Drążkowska 2020, 81-130 |
| J34 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B3 | crypt burial under the church | F | *adultus--maturus* | burial no. 5 | | pillow:<br>sedge (*Carex* sp.), common/slender spike-rush (*Eleocharis palustris/uniglumis* (L.) Roem.&Schult./(Link) Schult.), bedstraw (*Galium* sp.), hyssop (*Hyssopus officinalis* L.), oregano (*Origanum vulgare* L.), grasses (*Poaceae* indet.), creeping buttercup (*Ranunculus repens* L.), rattle (*Rhinanthus* sp.), clover (*Trifolium* sp.), moss (*Bryophyta*) | Pińska, Drążkowska 2020, 81-130 |
| J35 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B3 | crypt burial under the church | ND | ND | burial no. 6 | | pillow/mattress:<br>fir (*Abies* sp.) – needles | Pińska, Drążkowska 2020, 81-130 |
| J36 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B3 | crypt burial under the church | ND | ND | burial no. 7 | | mattress:<br>*Labiatae* (*Lamiaceae* indet.), common lavender (*Lavandula angustifolia* Mill.), field eryngo (*Eryngium cfr campestre* L.),<br>tree/coniferous bush<br>pillow:<br>corn chamomile (*Anthemis arvensis* L.), *Compositae* (*Asteraceae* indet.), hyssop (*Hyssopus officinalis* L.), common toadflax (*Linaria vulgaris* Mill.), other | Pińska, Drążkowska 2020, 81-130 |
| J37 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B4 | crypt burial under the church | ND | ND | burial no. 1 | | pillow:<br>basil thyme (*Acinos arvensis* (Lam.) Dandy), St John's wort (*Hypericum perforatum* L.), *Labiatae* (*Lamiaceae* indet.), other<br>on the body:<br>cinquefoil (*Potentilla* sp.) | Pińska, Drążkowska 2020, 81-130 |

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|---|---|---|---|---|---|---|---|---|---|
| J38 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B5 | crypt burial under the church | M | *maturus* | burial no. 10 | | pillow:<br>common agrimony (*Agrimonia eupatoria* L.), common/small bugloss (*Anchusa officinalis/ /arvensis* L./(L.) M. Bieb.), corn chamomile (*Anthemis arvensis* L.). stinking chamomile (*Anthemis cotula* L.), *Compositae* (*Asteraceae* indet.), common hedge nettle (*Betonica officinalis* L.) Cabbage family (*Brassicaceae* indet.), common marigold (*Calendula officinalis* L.), camelina (*Camelina sativa* (L.) Crantz), hemp (*Cannabis sativa* L.), shepherd's purse (*Capsellabursa-pastoris* (L.) Medik.), common chicory (*Cichorium intybus* L.), carrot (*Daucus carota* L.), viper's bugloss (*Echium vulgare* L.), bugloss (*Echium* sp.), bean family (*Fabaceae* indet.), buckwheat (*Fagopyrum esculentum* Moench), black-bindweed (*Fallopiacon volvulus* (L.) A.Love), fumitory (*Fumaria* sp.), bedstraw (*Galium* sp.), St John's wort (*Hypericum cfr perforatum*), *Labiatae* (*Lamiaceae* indet.), ox-eye daisy (*Leucanthemum vulgare* Lam. S.Str.), common toadflax (*Linaria vulgaris Mill.*), flax (*Linum usitatissimum* L.), ragged-robin (*Lychnisflos-cuculi* L.), apple (*Malus* sp.), mallow (*Malva* sp.), black medick (*Medicago lupulina* L.), forget-me-not (*Myosotis* sp.), common plantain (*Plantago major* L. S.Str.), grasses (*Poaceae* indet.), water pepper (*Polygonum hydropiper* L.), pale persicaria (*Polygonum lapathifolium* L.), cinquefoil (*Potentilla* sp.), domestic plum (*Prunus domestica* L.), common bracken (*Pteridium aquilinum* (L.) Kuhn), pedunculate oak (*Quercus cfr robur* L.), hairy buttercup (*Ranunculus cfr sardous* Crantz), wild radish (*Raphanus raphanistrum* L.), marsh yellow cress (*Roripa palustris* (L.) Besser), raspberry (*Rubus cfr ideus* L.), field sorrel (*Rumex acetosella* L.), *Rumex* sp., German knotweed (*Scleranthus annuus* L.), common ragwort (*Senecio jacobaea* L.), yellow foxtail (*Setaria pumila* (Pior.) Roem.&Schult.), European black nightshade (*Solanum cfr nigrum* L.Emend.Mill.), corn spurry (*Spergula arvensis* L.), spurry (*Spergula* sp.), common starwort (*Stellaria graminea* L.), chickweed (*Stellaria media* (L.) Vill.), starwort (*Stellaria* sp.), tansy (*Tanacetum* sp.), field pennycress (*Thlaspi arvense* L.), thyme (*Thymus* sp.), clover (*Trifolium* sp.), stinging nettle (*Urtica dioica* L.), common verbena (*Verbena officinalis* L.), violet (*Viola* sp.), ferns (*Polypodiopsida*), | Pińska, Drążkowska 2020, 81-130 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
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| | | | | | | | | other<br>chest:<br>common agrimony (*Agrimonia eupatoria* L.),<br>common/small bugloss (*Anchusa officinalis/ /arvensis* L./(L.) M. Bieb.), corn chamomile (*Anthemis arvensis* L.). stinking chamomile (*Anthemis cotula* L.), *Compositae* (*Asteraceae* indet.), common hedge nettle (*Betonica officinalis* L.) Cabbage family (*Brassicaceae* indet.), shepherd's purse (*Capsella bursa-pastoris* (L.) Medik.), common chicory (*Cichorium intybus* L.), carrot (*Daucus carota* L.), viper's bugloss (*Echium vulgare* L.), fumitory (*Fumaria* sp.), hawkweed (*Hieracium* sp.), black henbane (*Hyoscyamus niger* L.), St John's wort (*Hypericum perforatum* L.), common hop (*Humulus lupulus* L.), field scabious (*Knautia arvensis* (L.) J.M. Coult.), *Labiatae* (*Lamiaceae* indet.), ox-eye daisy (*Leucanthemum vulgare* Lam. S.Str.), common toadflax (*Linaria vulgaris* Mill.), flax (*Linum usitatissimum* L.), mallow (*Malva* sp.), black medick (*Medicago lupulina* L.), millet (*Panicum miliaceum* L.), common plantain (*Plantago major* L.S.Str.), hoary/ common plantain (*Plantago media/major* L./L.S.Str.), grasses (*Poaceae* indet.), common knotgrass<br>moss (*Bryophyta*),<br>(*Polygonum aviculare* L.), water pepper (*Polygonum hydropiper* L.), pale persicaria (*Polygonum lapathifolium* L.), cinquefoil (*Potentilla* sp.), common bracken (*Pteridium aquilinum* (L.) Kuhn), lesser spearwort (*Ranunculus flrammula* L.), hairy buttercup (*Ranunculus* cfr *sardous* Crantz), wild radish (*Raphanus raphanistrum* L.), field sorrel (*Rumex acetosella* L.), szczaw (*Rumex* sp.), German knotweed (*Scleranthus annuus* L.), common ragwort (*Senecio jacobaea* L.), yellow foxtail (*Setaria pumila* (Pior.) Roem.&Schult.), corn spurry (*Spergula arvensis L.*), spurry (*Spergula* sp.), common starwort (*Stellaria graminea* L.), chickweed (*Stellaria media* (L.) Vill.), common tansy (*Tanacetum cfr vulgare*), thyme (*Thymus* sp.), zigzag clover (*Trifolium cfr medium* L.), white clover (*Trifolium repens* L.), clover (*Trifolium* sp.), valerian (*Valeriana officinalis* L.), common verbena (*Verbena officinalis* L.), violet (*Viola* sp.), other | |

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| J39 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B7 | crypt burial under the church | F | *maturus* | burial no. 1 | | From the body:<br>yarrow (*Achillea millefolium* L. S. Str.), *Compositae* (*Asteraceae* indet.), hawkweed (*Hieracium* sp.), St John's wort (*Hypericum* cfr *perforatum* L.), autumn/bristly hawkbit (*Leontodon autumnalis/ hispidus* L.), common toadflax (*Linaria vulgaris* Mill.), curled mallow (*Malva crispa* L.), plantain (*Plantago* sp. ), pale persicaria (*Polygonum lapathifolium* L.), common self-heal (*Prunella vulgaris* L.), Rose family (*Rosaceae* indet.), common ragwort (*Senecio jacobaea* L. ), prickly sow-thistle (*Sonchus asper* (L.) Hill.), thyme (*Thymus* sp.), zigzag clover (*Trifolium cfr medium* L.), clover (*Trifolium* sp.), verbena (*Verbena officinalis* L.) | Pińska, Drążkowska 2020, 81-130 |
| J40 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B8 | crypt burial under the church | NN | prematurely born | NN | | mattress – palynological analysis:<br>mint (*Mentha* type) 43.2%<br>*Compositae* (*Asteroideae* undiff.)<br>umbellifers (*Apiaceae*) 8.8%<br>grasses (*Poaceae*) 8.6%<br>willow (*Epilobium*) 8.4%<br>mugwort (*Artemisia*) 4.1%<br>common verbena (*Verbena officinalis*) 1.4% cereals (*Cerealia* type) 1.3%<br>birch (*Betula*)<br>linden (*Tilia*)<br>alder (*Alnus*)<br>pine (*Pinus*) | Noryśkiewicz 2020, 131-143 |
| J41 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B9 | crypt burial under the church | M | *maturus* | burial no. 4 | d. 1765 | garland:<br>rosemary (*Rosmarinus officinalis* L.)<br>bouquet tied to a cross:<br>rosemary (*Rosmarinus officinalis* L.) | Pińska, Drążkowska 2020, 81-130 |
| J42 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B9 | crypt burial under the church | ND | ND | burial no. 6 | | garland:<br>rosemary (*Rosmarinus officinalis* L.)<br>bouquet in hands:<br>rosemary (*Rosmarinus officinalis* L.) | Pińska, Drążkowska 2020, 81-130 |

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| J43 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B9 | crypt burial under the church | F | *adultus* | burial no. 7 | NN | pillow – palynological analysis:<br>grasses (*Poaceae*) 80.6%<br>mugwort (*Artemisia*) 9.5%<br>in values above 1% occurred:<br>cereals (*Cerealia* type), ribwort plantain (*Plantago lanceolata*), *Rosaceae*, carnation (*Caryophyllaceae*), cornflower (*Centaurea cyanus*), *Compositae* (*Asteroideae* undiff.), Norway spruce (*Picea abies*), Scots pine (*Pinus sylvestris*), the remainder came from cultivated plants – pollen settled in the flowering season on dominant plants? | Noryśkiewicz 2020, 131-143 |
| J44 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B9 | crypt burial under the church | NN | *adultus* | burial no. 9 | 1747 | pillow – palynological analysis:<br>numerous fungal spores, poor preservation of most pollen grains, grasses (*Poaceae*), cereals (*Cerealia*), mint (*Mentha* type) dominate among those identified, others:<br>Scots pine (*Pinus sylvestris*), Norway spruce (*Picea abies*), linden (*Tilia*), mugwort (*Artemisia*), umbellifers (*Apiaceae*), *Compositae* (*Asteroideae* undiff. ), cabbage (*Brassicaceae*), carnation (*Caryophyllaceae*), cornflower (*Centaurea cyanus*), buckwheat (*Fagopyrum*), pea (*Lathyrus*), plantain (*Plantago lanceolata*), common knotgrass (*Polygonum aviculare*), buttercup (*Raunculus acris* type), *Rosaceae*, betony (*Stachys type*), dandelion (*Taraxacum* type) | Noryśkiewicz 2020, 131-143 |
| J45 | Poland, Lesser Poland Voivodeship, Kraków County | Kraków, Basilica of St Francis of Assisi, Crypt B9 | crypt burial under the church | F | *adultus* | burial no. 12 | 1753 | garland on the chest – palynological analysis:<br>field poppy (*Papaver rhoes* type) 65.2% carnation (*Caryophyllaceae*) 6.7%<br>pine pollen (*Pinus sylvestris*)<br>amaranth family (*Chenopodiaceae*) 4.5%<br>umbellifers (*Apiaceae*) 3.4%<br>*Compositae* (*Asteroideae* undiff.) 2.8%<br>mustard family (*Brassicaceae*) 1.1%<br>grasses (*Poaceae*) 1.1%<br>mugwort (*Artemisia*) 2.8%<br>cereals (*Cerealia* type) 1.1%<br>buttercup (*Ranunculus* type *acris*) 1.1%<br>less than 1%:<br>cornflower (*Centaurea cyanus* ), thistle (*Cirsium*), mallow (*Malva*)<br>others (5.4%)<br>pillow – palynological analysis:<br>mugwort (*Artemisia*) 87.5%<br>umbellifers (*Apiaceae*) over 7%<br>mallow (*Malva* type) – perhaps deliberately placed in the grave<br>the remaining (represented in values of less than 1%) are from the plant community from which the mugwort was extracted | Noryśkiewicz 2020, 131-143 |

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| J46 | Poland, Lower Silesian Voivodeship, Bolesławiec County | Bolesławiec, Church of the Assumption of the Blessed Virgin Mary and St Nicholas | gravestone | F | 14 months | Helena Gerstmann, daughter of Florian Gerstmann | d. 16 May 1588 | girl in a wreath | *Bolesławiec*... |
| J47 | Poland, Lower Silesian Voivodeship, Bolesławiec County | Iwiny, Warta Bolesławiecka municipality, Holy Cross Church | gravestone | F | NN | NN girl from the von Waldau family | d. ca. 1600 | girl in a wreath | *Iwiny*... |
| J48 | Poland, Lower Silesian Voivodeship, Bolesławiec County | Nowa, Church of Our Lady of Sorrows | gravestone | ND | ND | NN | ND | bouquet in the background | Stankiewicz 2015, 101 |
| J49 | Poland, Lower Silesian Voivodeship, Bolesławiec County | Ławszowa, Church of the Immaculate Conception of the Blessed Virgin Mary | gravestone | M | 1 year 3 days | Erdmann Berger | d. March 1687 | standing boy, three anemones or roses in his right hand, the other hand points to the coat of arms | Ławszowa...; Stankiewicz 2015, 99 |
| J50 | Poland, Lower Silesian Voivodeship, Bolesławiec County | Raciborowice Górne, Warta Bolesławiecka municipality, St Michael the Archangel's Church | gravestone | M | 21 weeks | Fabianus Brandanus von Zedlitz | d. 30 November 1609 | boy with a flower in his folded hands | *Raciborowice*... |
| J51 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Dzierżoniów, parish church of St George | gravestone | F | 2 days | Anna von Zedlitz | d. 1599 | girl with a flower in her folded hands | *Dzierżoniów*... |
| J52 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Kiełczyn, Dzierżoniów municipality, Church of the Nativity of the Blessed Virgin Mary | gravestone | M | child | NN | d. early 17th c. | boy with a flower in his folded hands | *Kiełczyn*... |
| J53 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Kiełczyn, Dzierżoniów municipality, Church of the Nativity of the Blessed Virgin Mary | gravestone | M | child | NN boy whose father came from the von Mesenau family | d. 1610 | a child wearing a wreath, with a flower in right hand bent and folded over its chest, with an amulet of coral embedded in necklace | *Kiełczyn*... |
| J54 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Kiełczyn, Dzierżoniów municipality, Church of the Nativity of the Blessed Virgin Mary | gravestone | F | 1 | Johanna Elisabetha von Eicke | d. 26 February 1660 | girl with a tulip in her right hand | *Kiełczyn*...; Stankiewicz 2015, 100 |

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| J55 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Pieszyce, St James the Apostle Church | gravestone | M | adult, 3-year-old child | George Nicoel von Reibnitz and his son Salomon | d. 29 December 1632 | boy with a flower in his folded hands | *Pieszyce...* |
| J56 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Prusice, St James the Apostle Church | gravestone | NN | child | NN | d. 1620 | flower in hands folded on chest | *Prusice...* |
| J57 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Przerzeczyn-Zdrój, Niemcza municipality, Church of the Blessed Virgin Mary | gravestone | ND | children | four children of the von Pfeil family | 16th c. | children standing, with flowers in one hand | *Przerzeczyn-Zdrój...* |
| J58 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Przerzeczyn-Zdrój, Niemcza municipality, Church of the Blessed Virgin Mary | gravestone | F | child | Barbara von Seidlitz, daughter of Ernst von Seidlitz (auf Kunsdorf) of Podlesie | d. 1610 | a girl wearing a wreath, with a flower in her folded hands? | *Przerzeczyn-Zdrój...* |
| J59 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Przerzeczyn-Zdrój, Niemcza municipality, Church of the Blessed Virgin Mary | gravestone | F | 18 | daughter of Bernhart von Brauchitsch auf Neudorf | d. 1622 | girl in a wreath | *Przerzeczyn-Zdrój...* |
| J60 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Słupice, Łagiewniki municipality, St Michael the Archangel's Church | gravestone | NN | child | NN | d. 1595 | child with a rose in left hand | *Słupice...* |
| J61 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Słupice, Łagiewniki municipality, St Michael the Archangel's Church | gravestone | NN | child | NN | d. 1601 | child with bouquet in folded hands | *Słupice...* |
| J62 | Poland, Lower Silesian Voivodeship, Dzierżoniów County | Uciechów, Dzierżoniów municipality, St Bartholomew's Church | gravestone | F | 0.5 year | Maria von Stange | d. 29 January 1605 | a girl wearing a wreath, with a flower in her folded hands | *Uciechów...* |
| J63 | Poland, Lower Silesian Voivodeship, Góra County | Góra, St Catherine of Alexandria Church | gravestone | F | NN | NN | NN | girl wearing a wreath, with a flower in her hands folded on her abdomen | *Góra...* |

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| J64 | Poland, Lower Silesian Voivodeship, Góra County | Żabin, Niechlów municipality, St Michael the Archangel's Church | gravestone | F | 9 weeks and 5 days | Barbara von Nostitz | d. 2 October 1612 | girl in a wreath | Żabin... |
| J65 | Poland, Lower Silesian Voivodeship, Jawor County | Jawor, St Martin's Church | gravestone | F | 5 weeks | Maria Iacobs, daughter of Christoph from Jawor | d. 2 February 1608 | girl wearing a wreath and with a bouquet in her folded hands | *Jawor...* |
| J66 | Poland, Lower Silesian Voivodeship, Jawor County | Jawor, Church of Peace | gravestone | F | 39 years, 35 weeks and 7 days | Rosina Broser née Hiebner | d. 1708 | the epitaph shows a portrait of a woman with a flower in her hand and an image of her husband, Friedrich Broser | *Jawor...* |
| J67 | Poland, Lower Silesian Voivodeship, Jawor County | Mierczyce, Wądroże Wielkie municipality, Church of the Assumption of the Blessed Virgin Mary | gravestone | M | 67 | Johannes von Schweinichen | d. 14 April 1677, epitaph from 1680 | a bunch of flowers scattered under the bust depiction of the deceased | *Mierczyce...* |
| J68 | Poland, Lower Silesian Voivodeship, Jelenia Góra County | Czernica, Jeżów Sudecki municipality, St Michael the Archangel's Church | gravestone | F | died at birth | NN daughter of Abraham von Lest | d. 6 April 1611 at birth | girl with a flower in her folded hands | *Czernica...* |
| J69 | Poland, Lower Silesian Voivodeship, Jelenia Góra County | Jelenia Góra, Church of St Erasmus and St Pancras | gravestone | F, M | children | children of Melcher Tilisch | Maria d. 17 October 1594, Martinus d. 18 July 1592 | girl in a wreath | *Jelenia Góra...* |
| J70 | Poland, Lower Silesian Voivodeship, Jelenia Góra County | Jelenia Góra, Church of St Erasmus and St Pancras | gravestone | F | 23 weeks and one day | Elisabeth, daughter of Johann Stake and Elisabeth Oxehuf | 25 January 1647 | girl in a coffin, holding an apple in her hands, next to a broken candle and the inscription "Vita fumus", an angel covers the child with a shroud | *Jelenia Góra...*; Stankiewicz 2015, 116 |
| J71 | Poland, Lower Silesian Voivodeship, Kamienna Góra County | Kamienna Góra | gravestone | F | 14 | Maria Simon | d. 1650 | a rosemary sprig and a prayer book in hand | Stankiewicz 2015, 106 |
| J72 | Poland, Lower Silesian Voivodeship, Kamienna Góra County | Kamienna Góra, municipal cemetery | gravestone | F | 5 years and 29 weeks | NN | d. 6 December 1653 | girl wearing a wreath, shown in a niche, with a book in her right hand | *Kamienna Góra...* |

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| J73 | Poland, Lower Silesian Voivodeship, Kamienna Góra County | Kamienna Góra, municipal cemetery | gravestone | F | 6 | NN | d. 5 April 1662 | girl lying on her side on a large pillow, a rose in her right hand | *Kamienna Góra...* |
| J74 | Poland, Lower Silesian Voivodeship, Kamienna Góra County | Raszów, Kamienna Góra municipality, knightly mausoleum of the von Schaffgotsch family | gravestone | M | 35 weeks and 12 days | Jeremias Ulmann | d. 28 May 1646 | boy with a cross in his right hand and a carnation in his left hand, bent at abdominal level | *Raszów...* |
| J75 | Poland, Lower Silesian Voivodeship, Kamienna Góra County | Raszów, Kamienna Góra municipality, knightly mausoleum of the von Schaffgotsch family | gravestone | M | 9 weeks and 5 days | Heinrich Roch von Tschirnhaus | d. 12 May 1614 | a boy in a grave wreath? | *Raszów...*; Stankiewicz 2015, 103 |
| J76 | Poland, Lower Silesian Voivodeship, Kłodzko County | Nowa Ruda, cemetery at St Nicholas Church | gravestone | F, M | children | two sons and two daughters of Hieronim Kessler | early 17th c. | girls with wreaths on their heads, the eldest with a bouquet in her folded hands containing carnations, lilies of the valley and anemones, currently illegible | *Nowa Ruda...*; Stankiewicz 2015, 99 |
| J77 | Poland, Lower Silesian Voivodeship, Kłodzko County | Nowa Ruda, cemetery at St Nicholas Church | gravestone | F | ND | Judith, daughter of the town scribe | 1631 | girl with a bouquet in hands folded on her stomach, currently illegible | *Nowa Ruda...* |
| J78 | Poland, Lower Silesian Voivodeship, Legnica County | Prochowice, Castle Church of St Andrew | gravestone | F | 3.5 months | Zuzanna von Zedlitz | d. 1540 | in the right hand a heraldic shield, in the other hand an apple | *Prochowice...*; Stankiewicz 2015, 116 |
| J79 | Poland, Lower Silesian Voivodeship, Lubań County | Platerówka | description of the opening of the grave in 1711 | F | teenager | Anna Maria von Gersdorf | d. 1620 | two silver wreaths next to the body | Stankiewicz 2015, 127 |
| J80 | Poland, Lower Silesian Voivodeship, Lubań County | Pobiedna, Leśna municipality, former Protestant church cemetery | gravestone | NN | child | NN | 16th c.? | child crowned by an angel with a wreath? | *Pobiedna...* |
| J81 | Poland, Lower Silesian Voivodeship, Lubań County | Świecie, Leśna municipality, Church of the Sacred Heart of Jesus | gravestone | F | adult woman | Elisabeth von Spiller (Helena/ Magdalena) | d. 1592 | girl in a wreath | *Świecie...* |

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| J82 | Poland, Lower Silesian Voivodeship, Lubin County | Chróstnik, Church of Our Lady of Sorrows | gravestone | F | ca. 1 year | Elena von Brauchitsch | d. 1567 | girl wearing a wreath of roses, with a sprig of rosemary in her right hand folded over her abdomen, the other hand folded underneath | *Chróstnik...*; Stankiewicz 2015, 105 |
| J83 | Poland, Lower Silesian Voivodeship, Lubin County | Szklary Górne, Lubin municipality, Church of St Peter and Paul | gravestone | F | child | NN daughter of Jon von Schindel of Zastruże and Rybno and Anna née Stössel | d. 25 January 1591 | girl in a wreath | *Szklary...* |
| J84 | Poland, Lower Silesian Voivodeship, Lwówek Śląski County | Niwnice, Lwówek Śląski municipality, St Hedwig's Church | gravestone | F | NN | Sibilla von Salza | d. 1583 | girl in a wreath | *Niwnice...* |
| J85 | Poland, Lower Silesian Voivodeship, Lwówek Śląski County | Niwnice, Lwówek Śląski municipality, St Hedwig's Church | gravestone | F | NN | NN daughter of Marcus Meiersburger of Lwówek Śląski | d. 24 December 1599 | girl in a wreath | *Niwnice...* |
| J86 | Poland, Lower Silesian Voivodeship, Lwówek Śląski County | Sobota | gravestone | F, M | children | NN | 17th c. | group tombstone, a tulip in child's hand | Stankiewicz 2015, 100 |
| J87 | Poland, Lower Silesian Voivodeship, Oleśnica County | Oleśnica, Minor basilica of St John the Apostle (castle church) | gravestone | F | NN | Justine and Margaret Eccardi | 1602/1603 | kneeling, facing each other figures of girls, wearing wreaths | *Oleśnica...* |
| J88 | Poland, Lower Silesian Voivodeship, Oleśnica County | Twardogóra, Lutheran church of the Holy Trinity and the Virgin Mary | gravestone | F, M | 45 years and 18 weeks | Elia Jakisch (b. 13 January 1632, d. 30 January 1677) and his daughter Barbara | after 1677 | an emblem with a skull from which grow 3 ears of grain, motto 'WIE DIE FRUCHT IM SOMMER REISST SO DER TOD UNS GREIFEN' | *Twardogóra...* |
| J89 | Poland, Lower Silesian Voivodeship, Oława County | Oława, Sanctuary of Our Lady of Consolation | gravestone | F | 44 weeks | Ursula Chitner, daughter of Paul Chitner | d. 26 June 1594 | girl wearing a wreath with rosettes and a bouquet in her folded hands | *Oława...* |
| J90 | Poland, Lower Silesian Voivodeship, Oława County | Oława, Sanctuary of Our Lady of Consolation | gravestone | F | young woman | Susanna Bucher daughter of pastor George Bucher | d. 19 December 1598 | girl in a rosemary wreath | *Oława...* |

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| J91 | Poland, Lower Silesian Voivodeship, Oława County | Oława, Sanctuary of Our Lady of Consolation | gravestone | F | young woman | Justina Bucher, daughter of pastor George Bucher | d. 24 February 1601 | girl in a rosemary wreath | *Oława...* |
| J92 | Poland, Lower Silesian Voivodeship, Oława County | Oława, Sanctuary of Our Lady of Consolation | gravestone | F | 1 year 30 weeks | Anna Maria von Hund | d. 3 September 1618 | a girl with a bouquet in her folded hands, perhaps of grain ears? | *Oława...*; Stankiewicz 2015, 98 |
| J93 | Poland, Lower Silesian Voivodeship, Polkowice County | Grodowiec, Grębocice municipality, Church of St John the Baptist | gravestone | F | young woman | Ennelein of the Pusch family from Duża Wólka | d. 30 August 1581 | a girl in a wreath? | *Grodowiec...* |
| J94 | Poland, Lower Silesian Voivodeship, Polkowice County | Jakubów, Radwanice municipality, St James the Apostle Church | gravestone | F | child | Magdalena von Kittlitz, daughter of Margarethe von Kittlitz, née Niebelschütz and Fabian von Kittlitz und Zauchaw in Drożyna | d. in 1600 | a girl wearing a wreath? with a flower in her folded hands | *Jakubów...* |
| J95 | Poland, Lower Silesian Voivodeship, Strzelin County | Witowice, Wiązów municipality, Church of Our Lady of Częstochowa | gravestone | F | young adults | Anna von Sebottendorf d. 18 February 1598 and Susanna von Sebottendorf d. 15 February 1598 from Kurów | after 1598 | girls standing in dresses, with their hair loose, with wreaths on their heads | *Witowice...* |
| J96 | Poland, Lower Silesian Voivodeship, Strzelin County | Zarzyca | gravestone | F | child | Anna Helena von Zedlitz | d. 1626 | apple held in hands | Stankiewicz 2015, 116 |
| J97 | Poland, Lower Silesian Voivodeship, Strzelin County | Żelowice, Kondratowice municipality, Church of the Exaltation of the Holy Cross | gravestone, polychromed | F, M | NN | Caspar von Mettich the Younger and Eva von Mettich | d. 1557(brother) and 1560 (sister) | girl wearing a green wreath – headband around her head | *Żelowice...* |

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| J98 | Poland, Lower Silesian Voivodeship, Strzelin County | Żelowice, Kondratowice municipality, Church of the Exaltation of the Holy Cross | gravestone, polychromed | F | young woman | Eva von Mettich | d. 1598 | girl wearing a green wreath | *Żelowice...* |
| J99 | Poland, Lower Silesian Voivodeship, Strzelin County | Żelowice, Kondratowice municipality, Church of the Exaltation of the Holy Cross | gravestone, polychromed | F | child | Margareth von Schindel | d. 1601 | a girl wearing a wreath, blue flowers in her right hand – cornflowers? violets? forget-me-nots? | Stankiewicz 2015, 99 |
| J100 | Poland, Lower Silesian Voivodeship, Strzelin County | Żeleźnik, Strzelin municipality, Church of Our Lady of the Scapular | gravestone | NN | children | NN | early 17th c. | child with a flower in hands folded on stomach | *Żeleźnik...* |
| J101 | Poland, Lower Silesian Voivodeship, Środa Śląska County | Brzezina, Church of Our Lady of the Rosary | gravestone | M | child | Johannes Haunold | d. 1589 | in hand a crocus with a small cross | Stankiewicz 2015, 99 |
| J102 | Poland, Lower Silesian Voivodeship, Środa Śląska County | Siemidrożyce, Kostomłoty municipality, St Bartholomew's Church | gravestone | M | 2 years and 5 weeks | Adam von Falkenhayn | d. 1608 | boy with a bouquet of flowers in his right hand, holding a hat in his left | *Siemidrożyce...* |
| J103 | Poland, Lower Silesian Voivodeship, Środa Śląska County | Środa Śląska, Church of St Andrew the Apostle | gravestone | F | 4 | daughter of Peter von Reinbaben und Kadel | d. 6 August 1590 | girl wearing a wreath, with a rose in her hands folded on her stomach | Środa Śląska...; Stankiewicz 2015, 98 |
| J104 | Poland, Lower Silesian Voivodeship, Środa Śląska County | Ujazd Górny, Udanin municipality, St Martin's Church | gravestone | M | ND | Georg von Strachwitz, son of Christoph von Strachwitz auf Kernitz | d. 1600 | boy with a flower in his folded hands | *Ujazd Górny...* |
| J105 | Poland, Lower Silesian Voivodeship, Środa Śląska County | Źródła, Church of the Exaltation of the Holy Cross | gravestone | M | child | son of Melchior von Reibnitz | d. 1614 | boy in a wreath | *Źródła...* |
| J106 | Poland, Lower Silesian Voivodeship, Środa Śląska County | Źródła, Church of the Exaltation of the Holy Cross | gravestone | F | 1 | daughter of Melchior von Reibnitz | d. 1616 | girl in a wreath | Stankiewicz 2015, 103 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J107 | Poland, Lower Silesian Voivodeship, Świdnica County | Bystrzyca Górna, Świdnica municipality, Church of the Assumption of the Blessed Virgin Mary | gravestone | M | 4 weeks | Adolf von Schindel, son of Niclas von Schindel und Dromsdorf auf Bruckersdorf | d. 8 May 1605 | boy wearing a wreath with a bouquet in his folded hands | *Bystrzyca...* |
| J108 | Poland, Lower Silesian Voivodeship, Świdnica County | Bystrzyca Górna, Świdnica municipality, Church of the Assumption of the Blessed Virgin Mary | gravestone | F | 3 years and 10 weeks | Maria von Schindel, daughter of Niclas von Schindel und Dromsdorf auf Burckersdorf | d. 27 April 1606 | girl in a wreath | *Bystrzyca...* |
| J109 | Poland, Lower Silesian Voivodeship, Świdnica County | Bystrzyca Górna, Świdnica municipality, Church of the Assumption of the Blessed Virgin Mary | gravestone | M | 36 weeks | Christianus von Schindel, son of Marten von Schindel | d. 24 November 1607 | boy wearing a wreath with a bouquet in his folded hands | *Bystrzyca...* |
| J110 | Poland, Lower Silesian Voivodeship, Świdnica County | Bystrzyca Górna, Świdnica municipality, Church of the Assumption of the Blessed Virgin Mary | gravestone | F | 5 months | Eleonora von Schindel | d. 1 March 1616 | girl with a wreath and a bouquet in her folded hands | *Bystrzyca...* |
| J111 | Poland, Lower Silesian Voivodeship, Świdnica County | Gogołów, Świdnica municipality, St Martin's Church | gravestone | F | adult | Hedwig von Seidlitz | d. 1617 | girl with a wreath | *Gogołów...* |
| J112 | Poland, Lower Silesian Voivodeship, Świdnica County | Strzegom, Minor Basilica of St Peter and St Paul | gravestone | F | child | Anna Kierstein | NN | girl with a flower in her folded hands | *Strzegom...* |
| J113 | Poland, Lower Silesian Voivodeship, Świdnica County | Strzegom, Minor Basilica of St Peter and St Paul | gravestone | F | 3 | Anna Maria von Nimitz | d. 21 April 1589 | girl with a wreath | *Strzegom...* |
| J114 | Poland, Lower Silesian Voivodeship, Świdnica County | Strzegom, Minor Basilica of St Peter and St Paul | gravestone | F | child | Martha Koschwitz | d. 16 September 1595 | girl wearing a wreath, carnation in her hands | *Strzegom...*; Stankiewicz 2015, 99 |
| J115 | Poland, Lower Silesian Voivodeship, Świdnica County | Strzegom, Minor Basilica of St Peter and St Paul | gravestone | F | 5 | Rosina, daughter of Caspar | d. 2 January 1596 | a girl with a wreath and a flower in her folded hands? | *Strzegom...* |

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|---|---|---|---|---|---|---|---|---|---|
| J116 | Poland, Lower Silesian Voivodeship, Świdnica County | Strzegom, Minor Basilica of St Peter and St Paul | gravestone | F | 1 year 44 weeks and 5 days | Maria, daughter of Caspar Schmiede | d. 22 April 1607 | a girl wearing a wreath on her head, with a flower in her raised right hand, in the other she holds a cartouche with a coat of arms? | *Strzegom...* |
| J117 | Poland, Lower Silesian Voivodeship, Świdnica County | Świebodzice, St Nicholas Church | crypt burial | F | 59 | Susanna Hedwig von Hochberg | d. 6 August 1692 | deceased on a mattress and pillow made of wool and filled with sawdust and plants | Kulpa *et al.* 2019, 136-137 |
| J118 | Poland, Lower Silesian Voivodeship, Świdnica County | Świebodzice, St Nicholas Church | crypt burial | M | 73 | Johann Heinrich I Hochberg | d. 1671 | pillow or mattress filling – common hop, seed cluster which has been identified as apple-of-Peru (*Nicandra physalodes*) | Kulpa *et al.* 2019, 136-137 |
| J119 | Poland, Lower Silesian Voivodeship, Trzebnica County | Masłów, Church of Our Lady of Perpetual Help | gravestone | F | 18 weeks and 5 days | Johanna Maria von Salisch | d. 22 July 1597 | standing girl shown with her mother, who died in the same year, apple in her left hand | *Masłów...*; Stankiewicz 2015, 116 |
| J120 | Poland, Lower Silesian Voivodeship, Trzebnica County | Strupina, Prusice municipality, Church of the Immaculate Heart of the Blessed Virgin Mary | gravestone | F | 6 | Barbara Pentzki | d. 19 April 1595 | girl in a wreath | *Strupina...* |
| J121 | Poland, Lower Silesian Voivodeship, Wałbrzych County | Dziećmorowice, Walim municipality, Church of St John the Apostle and Evangelist | gravestone | F | 10 | Anna von Logau, daughter of Lord of Grodno and Dziećmorowice | d. w 1577 | girl in a wreath | *Dziećmorowice...* |
| J122 | Poland, Lower Silesian Voivodeship, Wałbrzych County | Dziećmorowice, Walim municipality, Church of St John the Apostle and Evangelist | gravestone | F | 15 years and 27 weeks | Eva von Czettritz of Rusinowa | d. 26 June 1619 | girl in a wreath and flowery dress | *Dziećmorowice...* |
| J123 | Poland, Lower Silesian Voivodeship, Wałbrzych County | Wałbrzych, Collegiate Church of the Guardian Angels | gravestone | F | young woman | Hedwig von Czettritz | d. 5 May 1578 | girl in a wreath | *Wałbrzych...* |
| J124 | Poland, Lower Silesian Voivodeship, Wałbrzych County | Wałbrzych, Collegiate Church of the Guardian Angels | gravestone | F | young woman | Ursula von Czettritz | d. 12 July 1591 | girl wearing a wreath, with a flower in her right hand | *Wałbrzych...* |
| J125 | Poland, Lower Silesian Voivodeship, Wołów County | Piskorzyna | gravestone | F | child | daughter of Wenzel von Kittlitz | d. 1577 | a sprig of rosemary in hands | Stankiewicz 2015, 105 |
| J126 | Poland, Lower Silesian Voivodeship, Wołów County | Piskorzyna | gravestone | M | child | son of Wenzel von Kittlitz | 16$^{th}$ c. | a carnation in hand | Stankiewicz 2015, 99 |

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|---|---|---|---|---|---|---|---|---|---|
| J127 | Poland, Lower Silesian Voivodeship, Wołów County | Wińsko, Holy Trinity Church | gravestone | F | child | Dorothea von Niebelschütz | d. 1595 | girl with a flower in her folded hands | *Wińsko...* |
| J128 | Poland, Lower Silesian Voivodeship, Wołów County | Wińsko, Holy Trinity Church | gravestone | F | NN | Anna von Niebelschütz | d. 1595 | girl wearing a wreath, with a bouquet in her folded hands | *Wińsko...* |
| J129 | Poland, Lower Silesian Voivodeship, Wołów County | Wińsko | gravestone | M | child | Esaias | modern era | apples in hands | Stankiewicz 2015, 116 |
| J130 | Poland, Lower Silesian Voivodeship, Wrocław County | Księginice Małe, Sobótka municipality, church of Our Lady of the Rosary | gravestone | M | 2 years and 16 weeks and 6 weeks and 4 days | sons of Leonhard von Gellhorn: Christoff and Gotfrid | d. 24 September 1601 d. in October 1600 | boys with bouquets in their folded hands | *Księginice...* |
| J131 | Poland, Lower Silesian Voivodeship, Wrocław County | Księginice Małe, Sobótka municipality, church of Our Lady of the Rosary | gravestone | F | 20 | Helena Susana von Schindel | d. 1656 | rose in hands | Stankiewicz 2015, 98 |
| J132 | Poland, Lower Silesian Voivodeship, Wrocław County | Sośnica, municipality of Kąty Wrocławskie, Church of the Exaltation of the Holy Cross | gravestone | F | 2 years 9 weeks and 2 days | Anna von Brockendorf | d. 8 October 1619 | girl in a grave crown | *Sośnica...* |
| J133 | Poland, Lower Silesian Voivodeship, Wrocław County | Sośnica, municipality of Kąty Wrocławskie, Church of the Exaltation of the Holy Cross | gravestone | F | 4 | Magdalena von Brockendorf | d. 11 October 1619 | girl in a grave crown | *Sośnica...* |
| J134 | Poland, Lower Silesian Voivodeship, Wrocław County | Wierzbice, Church of Corpus Christi and the Our Lady of Częstochowa | gravestone | M | ND | son of Hans von Reibnitz | d. 1579 | apple in hand (symbol of power?) | Stankiewicz 2015, 116 |
| J135 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, St John the Baptist Cathedral | burial | M | 37 | Bishop Jošt of Rožmberk | d. December 1467 | cushion filled with wood shavings | Wojcieszak 2012, 25 |
| J136 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, St John the Baptist Cathedral | church burial | M | 63 | Robert Herzog | d. 26 December 1886 | deceased covered with wreaths of fir twigs (*Abies* Mill.) | Sanke 2012, 475-479 |
| J137 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, cemetery at St Elizabeth Church | cemetery burial | F | ca. 30-35 | NN | 16th-18th c. | woman buried with a wreath on her head and a bouquet on her left forearm, bouquet made of wires and parts of natural plants | relics stored in the Archaeological Museum in Wrocław |

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|---|---|---|---|---|---|---|---|---|---|
| J138 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, cemetery at St Elizabeth Church | cemetery burial | NN | child | NN | 16th-18th c. | child buried in a wreath of artificial flowers with a wooden frame, branches of alder (*Alnus*), willow (*Salix*), conifers – spruce or larch (*Picea/Larix*) and unidentified plant parts | relics stored in the Archaeological Museum in Wrocław, the identifications by E. Myśków, PhD, of the Faculty of Biological Sciences, Wrocław University |
| J139 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, Church of St Mary Magdalene | gravestone | F | 2 years and 24 weeks | Barbara von Strachwitz | d. 5 August 1613 | girl wearing a wreath, with a bouquet in her folded hands | Stankiewicz 2015, 97 |
| J140 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, cemetery at the church of St Mary Magdalene | cemetery burial | NN | *infans* I | grave 19 | NN | wreath found on tibias, consisted of wicker rim, 12 cm in diameter, wrapped with strings interwoven with golden thread | Wojcieszak 2010, 156 |
| J141 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, cemetery at the church of St Mary Magdalene | cemetery burial | NN | *infans* I | grave 15 | NN | on the leg bones openwork flowers made of bronze wire and a loose substance (remains of paper?), a bouquet of artificial flowers with a handle in the form of 'a bundle of twigs, each of which was wrapped in metal thread', all wrapped in textile ribbon | Wojcieszak 2010, 160 |
| J142 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, cemetery at the church of St Mary Magdalene | cemetery burial | NN | *infans* I | grave 6 | NN | discolouration from patina in the shape of a rim on the skull and particles of organic matter (paper?) | Wojcieszak 2010, 155-156 |
| J143 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, cemetery at the church of St Mary Magdalene | cemetery burial | F | 20-35 | grave 1 | NN | discolouration from patina in the shape of a rim on the skull | Wojcieszak 2010, 155-156 |
| J144 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, cemetery at the church of St Mary Magdalene | cemetery burial | F | *adultus/ maturus* | grave 56 | NN | skull facing west, right hand on the left hip, left hand on the chest, on the right hand a bronze ring, cushion filled with unspecified organic matter (plant?) under the head | Wojcieszak 2010, 161 |
| J145 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław, cemetery at the former Salvator church | cemetery burial | NN | 7-8 | grave 1126 | 18th c. | on the skull the remains of a wreath, possibly of plants from the cypress family – thuja (*Thuja* L.)? decorated with openwork, artificial flowers | Wojcieszak 2015, 34 |
| J146 | Poland, Lower Silesian Voivodeship, Wrocław County | Wrocław – Leśnica, St Hedwig's Church | gravestone | F | NN | Rosina Bauchwitz (née Uthmann) from Stabłowice with her three daughters | d. 1635 | the youngest child holds a flower in hand – a rose? | *Leśnica*... |
| J147 | Poland, Lower Silesian Voivodeship, Wrocław County | Zachowice, gm. Kąty Wrocławskie, Church of the Assumption of the Blessed Virgin Mary | gravestone | F | child | Elisabeth von Seidlitz of Kunów and Stróża | d. in 1579 | girl wearing a wreath | *Zachowice*... |

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|---|---|---|---|---|---|---|---|---|---|
| J148 | Poland, Lower Silesian Voivodeship, Wrocław County | Zachowice, municipality of Kąty Wrocławskie, Church of the Assumption of the Blessed Virgin Mary | gravestone | F | 1 year 4 weeks | Anna von Seidlitz, daughter of David von Seidlitz | d. 7 March 1608 | girl wearing a wreath, with a flower in her folded hands | *Zachowice...* |
| J149 | Poland, Lower Silesian Voivodeship, Wrocław County | Zachowice, municipality of Kąty Wrocławskie, Church of the Assumption of the Blessed Virgin Mary | gravestone | F | child | NN | d. 1612 | girl wearing a crown or decorative headpiece?, with a tulip in her right hand folded over her stomach, a cross in her left hand | *Zachowice...* |
| J150 | Poland, Lower Silesian Voivodeship, Zgorzelec County | Dłużyna Dolna, Pieńsk municipality, municipal cemetery in Dłużyna Dolna | gravestone | M | 6 | Gotthard Hellwig, son of pastor Andreas Helwig and Maria Sophie née Schäfers | d. in 1678 | boy standing against a curtain, with a hat in his left and a rose sprig with two flowers in his right hand | *Dłużyna Dolna...* |
| J151 | Poland, Lower Silesian Voivodeship, Złotoryja County | Jerzmanice-Zdrój, municipality of Złotoryja, St Anthony Church | gravestone | F | child | daughter of Anna and Hans von Bock | d. in 1587 | girl wearing a wreath | *Jerzmanice...* |
| J152 | Poland, Lower Silesian Voivodeship, Złotoryja County | Radziechów, municipality of Zagrodno, Church of the Visitation of the Blessed Virgin Mary | gravestone | F | 26 weeks and 2 days | Ursula Sabina von Nimptsch, daughter of Konrad von Nimptsch | d. 8 August 1623 | girl wearing a wreath with a bouquet of roses or anemones in her hands folded on her stomach | *Radziechów...* |
| J153 | Poland, Lower Silesian Voivodeship, Złotoryja County | Radziechów, municipality of Zagrodno, Church of the Visitation of the Blessed Virgin Mary | gravestone | F | 35 weeks, 2 days and 6 hours | Elisabeth von Nimptsch | d. 6 August 1626 | girl wearing a wreath of plants, with a flower-shaped jewel placed above her forehead, with a bouquet in her hands folded on her stomach | *Radziechów...* |
| J154 | Poland, Lower Silesian Voivodeship, Złotoryja County | Radziechów, municipality of Zagrodno, Church of the Visitation of the Blessed Virgin Mary | gravestone | F | 38 | Cordula Margareta von Braun née Gr. von Pless, second wife of Johann Christoph von Braun of Radziechów | d. 15 August 1664 | book in left and apple in right hand | *Radziechów...*; Stankiewicz 2015, 99-100 |

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|---|---|---|---|---|---|---|---|---|---|
| J155 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial F | F | NN | NN | May, 2nd half of the 19th c. | chest area: leaves (*Dicotyledones*), herbs – leaf fragments (*Dicotyledones*),<br>pillow filling: dill (*Anethum graveolens*), hyssop (*Hyssopus officinalis*), red-root amaranth (*Amaranthus retroflexus*), mustard? (Cf. *Sinapis alba*), mugwort (*Artemisia* sp.), *Compositae* (*Asteraceae* indet.), umbelliferous (*Apiaceae* indet.), unidentified, thoracic region: boxwood (*Buxus sempervirens*) | Drążkowska (red.) 2015, 315 |
| J156 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial F | F | NN | NN | December, 2nd half of the 19th c. | cushion filling: garden dill (*Anethum graveolens*), *Compositae* (*Asteraceae* indet.), umbelliferous (*Apiaceae* indet.),<br>herbs from the mattress from around the legs: fragments of twigs and leaves,<br>mattress shavings: Scots pine (*Pinus sylvestris*), unidentified herbs,<br>cushion filling: red-root amaranth (*Amaranthus retroflexus*), feverfew? (cf. *Tanacetum parthenium*), hyssop (*Hyssopus officinalis*), dill (*Anethum graveolens*), *Compositae* (*Asteraceae* indet.) unidentified, herbs – fragment of leaf (*Dicotyledones*), pelvic area: boxwood (*Buxus sempervirens*) | Drążkowska (red.) 2015, 315-316 |
| J157 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial F | F | NN | NN | 2nd half of the 19th c. | unmarked, boxwood (*Buxus sempervirens*)<br>shavings from the mattress:<br>Scots pine (*Pinus sylvestris*) | Drążkowska (red.) 2015, 315-318 |
| J158 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | herbs: boxwood (*Buxus sempervirens*), Scots pine (*Pinus sylvestris*), unidentified, fragments: Scots pine (*Pinus sylvestris*), unidentfied,<br>plant material: boxwood (*Buxus sempervirens*), Scots pine (*Pinus sylvestris*), elm (*Ulmus* sp.), unidentfied | Drążkowska (red.) 2015, 318-320 |
| J159 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | boxwood (*Buxus sempervirens*), unidentfied | Drążkowska (red.) 2015, 318-320 |
| J160 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | plant material: boxwood (*Buxus sempervirens*), Scots pine (*Pinus sylvestris*), elm (*Ulmus* sp.), unidentfied | Drążkowska (red.) 2015, 318-320 |
| J161 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | plant material: wood of deciduous species (*Dicotyledones*), unidentified | Drążkowska (red.) 2015, 318-320 |
| J162 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | plant material: boxwood (*Buxus sempervirens*), boxwood? (cf. *Buxus sempervirens*), Scots pine (*Pinus sylvestris*), moss | Drążkowska (red.) 2015, 318-320 |
| J163 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | plant material: boxwood (*Buxus sempervirens*), boxwood? (cf. *Buxus sempervirens*), Scots pine (*Pinus sylvestris*), moss | Drążkowska (red.) 2015, 318-320 |

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|---|---|---|---|---|---|---|---|---|---|
| J164 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | moss, unidentified | Drążkowska (red.) 2015, 318-320 |
| J165 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | plant material: boxwood (*Buxus sempervirens*), Scots pine (*Pinus sylvestris*), elm (*Ulmus* sp.), unidentfied | Drążkowska (red.) 2015, 318-320 |
| J166 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | plant material: boxwood (*Buxus sempervirens*), elm (*Ulmus* sp.), unidentfied | Drążkowska (red.) 2015, 318-320 |
| J167 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | plant material: common boxwood? (cf. *Buxus sempervirens*), Scots pine (*Pinus sylvestris*), elm (*Ulmus* sp.) | Drążkowska (red.) 2015, 318-320 |
| J168 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | crypt burial H | F | NN | NN | 1863-1882 | plant material: Scots pine (*Pinus sylvestris*), elm (*Ulmus* sp.), unidentfied | Drążkowska (red.) 2015, 318-320 |
| J169 | Poland, Lublin Voivodeship, Lublin County | Lublin, Church of the Assumption of the Blessed Virgin Mary | church burial | ND | *immaturus* | NN | 1551-1634 (C14) | a wreath with a base in the form of a twig, to which metal ornaments and textile flowers, boxwood or myrtle twigs are attached | Niedźwiadek 2017, 267 |
| J170 | Poland, Lublin Voivodeship, Puławy County | Końskowola, Church of the Discovery of the Holy Cross and St Andrew the Apostle | crypt burial | F | ca. 37 | Zofia Lubomirska née Opalińska | d. 1675 | cushion: common oregano (*Origanum vulgare*) – ripe fruit and fruits on shoot tops, *Compositae* (*Asteraceae*) – remains of inflorescences, yarrow (*Achillea millefolium* L.), corn chamomile (*Anthemis arvensis* L.), common ragwort (*Jacobaea vulgaris* Gaertn.), grasses (*Poaceae*), sedge (*Carex* sp.), dioecious sedge (*Carex dioica*), flax (*Linum usitatisinum*) fruit fragments, oat (*Avena sativa*) – flowers, alpine sea holly? (*Eryngium cfr alpinum*) – fruit, St John's wort (*Hypericum perforatum*) – flowers and fruit, common centaury (*Centaurium erythraea*) – fruit, field clover (*Trifolium arvense*) – inflorescence fragment, flower, ripening fruit, black medick (*Medicago lupulina*), hawkweed oxtongue (*Picris hieracioides*), sorrel (*Rumex acetosa*) – preserved with perianth | Drążkowska (red.) 2015, 311-312 |
| J171 | Poland, Lubusz Voivodeship, Międzyrzecz County | Rokitno, museum at the Sanctuary of Our Lady, originally the church of the Unity of Bohemian Brethren in Jędrzychowice near Wschowa | coffin portrait, the deceased buried under the church floor (according to the inscription) | F | 4, b. 1675 | Anna Eleonora Mielęcka | d. 7 January 1679 portrait dated 13 February 1679 (funeral date?) | festive outfit, ruffled curls, pearl jewellery, green bridal wreath on head | Dziubkowa 1996, 114, cat. 102 |

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|---|---|---|---|---|---|---|---|---|---|
| J172 | Poland, Lubusz Voivodeship, Międzyrzecz County | Rokitno, museum at the Sanctuary of Our Lady, originally the church of the Unity of Bohemian Brethren in Jędrzychowice near Wschowa | coffin portrait, the deceased buried under the church floor (according to the inscription) | F | 5, b. 1674 | Konstancja Jadwiga Mielęcka | d. 15 September 1679 | festive outfit, ruffled curls, garnet jewellery, green bridal wreath on head | Dziubkowa 1996, 117, cat. 105 |
| J173 | Poland, Lubusz Voivodeship, Nowa Sól County | Bytom Odrzański, municipal cemetery | gravestone | F | NN | Anna Maria Schönaich from Bytom Odrzański in 1696 | 1696 | the deceased reaches for a flower from a rose bush, a hand comes out of the clouds and pulls her by the hair to heaven | Stankiewicz 2015, 98 |
| J174 | Poland, Lubusz Voivodeship, Nowa Sól County | Kożuchów, lapidarium in the former Protestant cemetery | gravestone | F | 25 | Helena von Schkopp of Kocin, wife of Leonard von Kottwitz, lord of Chobienia and Niszczyce | d. ca. 1600 | woman wearing a grave crown | *Kożuchów*... |
| J175 | Poland, Lubusz Voivodeship, Nowa Sól County | Otyń, Church of the Exaltation of the Holy Cross | gravestone | F | NN | NN | 17th c. | girls in wreaths | *Otyń*... |
| J176 | Poland, Lubusz Voivodeship, Wschowa County | Wschowa, Church of the Manger of Christ | crypt burial | | 36 | Zofia née Ujejska Radomicka | d. 21 July 1628 | horse chestnut fruit in the coffin, silk dress with a floral and pomegranate motif | Kochman 2012 |
| J177 | Poland, Lubusz Voivodeship, Żagań County | Gorzupia Dolna, municipality of Żagań, St George Church | gravestone | F | NN | Ursula von Berge, daughter of Anna and Sigmunt von Berge | 16th c. | girl with a wreath on her head | *Gorzupia Dolna*... |
| J178 | Poland, Lubusz Voivodeship, Żagań County | Gorzupia Dolna, municipality of Żagań, St George Church | gravestone | F | NN | Barbara von Berge, daughter of Anna and Sigmunt von Berge | 16th c. | girl with a wreath on her head | *Gorzupia Dolna*... |
| J179 | Poland, Lubusz Voivodeship, Żagań County | Dzietrzychowice, municipality of Żagań Church of St John the Baptist | gravestone | F | ca. 10 or 6 | Ursula von Promnitz | d. 1608 | in hands a poppy flower surrounded by ears of grain | Stankiewicz 2015, 97 |
| J180 | Poland, Lubusz Voivodeship, Żagań County | Dzietrzychowice, municipality of Żagań Church of St John the Baptist | gravestone | F | several weeks and 3 days | Salome von Promnitz, daughter of Margarethe née von Haugwitz | d. 4 March 1612 | girl with a wreath on her head | *Dzietrzychowice*... |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J181 | Poland, Masovian Voivodeship, Radom County | Radom, St Wenceslas Church | engraved floor gravestone | NN | ND | NN | mid-13th to mid-14th c. | gravestone with a representation of a sword and a shaft of an unspecified object – a spear?, a processional cross? a pilgrim's staff? | Florek 2013, 55-56 |
| J182 | Poland, Masovian Voivodeship, Warsaw County | Warsaw, St John the Baptist Cathedral, crypt under the presbytery | crypt burial | M | 24 | Stanisław, Duke of Mazovia | d. 8 August 1524 | body covered with lime, a layer of herbs ca. 5 cm thick on the skeleton, the head rested on a silk cushion filled with herbs (the botanical sample from the cushion has been lost), a fragment of a shroud with an eagle motif that covered the coffin from the outside, bundles of herbs scattered on the body, plants from the burial: thyme (*Thymus*), chamomile (*Matricaria*), mugwort (*Artemisia*), shepherd's purse (*Capsella*), resin | Pela 1997 |
| J183 | Poland, Masovian Voivodeship, Warsaw County | Warsaw, St John the Baptist Cathedral, crypt under the presbytery | crypt burial | M | 25 | Janusz III, Duke of Mazovia | d. 9/10 March 1526, funeral: 25 August 1526 | coffin upholstered with felt inside, fragments of silk and woollen fabrics, near the right hand – a ring with a plant motif, bunches of herbs, unevenly scattered, a layer of lime on the bottom 1.5 cm thick, plants from the burial: thyme (*Thymus*), chamomile (*Matricaria*), mugwort (*Artemisia*), plants of *Capsella* genus, umbellifers (*Apiaceae*), common hop (*Humulus lupulus*), figwort (*Euphrasia*), betony (*Stachys*) | Pela 1997 |
| J184 | Poland, Masovian Voivodeship, Warsaw County | Warsaw, St John the Baptist Cathedral, crypt under the presbytery | crypt burial | M | ND | NN | d. 1664 | abdominal cavity: creeping thyme (*Thymus cfr serpyllum*) – mainly flower calyxes and fruit, garden savory (*Satureia hortensis*), carnation (*Dianthus* sp.), field mouse-ear (*Cerastium arvense*), moss, cushion – hay/straw? 21 plant taxa: most abundant grasses (*Poaceae*), fragrant thyme (*Anthoxantum cfr odoratum*), common crested grass (*Cynostrus cristatus*), common cephalopod (*Prunella vulgaris*), laxative flax (*Linum catharticum*), meadow clover (*Trifolium pratense*), big trefoil (*Lotus uliginosus*) – pod, fragments of pods, seeds, cornflower (*Centaurea cyanus*), black medick (*Medicago lupulina*) | Drążkowska (red.) 2015, 308-309 |
| J185 | Poland, Masovian Voivodeship, Warsaw County | Warsaw, St John the Baptist Cathedral, crypt under the presbytery | crypt burial | M | ND | NN | 17th/18th c. | coffin bottom lining: 91% mugwort (*Artemisia* sp.), many stems with inflorescences, common bracken (*Pteridium aqulinum*) – leaves, field eryngo (*Eryngium* cfr *campstre*), common chicory (*Cichorium intybus*) – fruit, corn toadflax (Linaria vulgaris) – seeds, common knotgrass (*Polygonum aviculare*), St John's wort (*Hypericum perforatum*) – seed, flower, fruit, common kidneyvetch (*Anthylis vulneraria*), white clover (*Trifolium repens*) | Drążkowska (red.) 2015, 309-310 |
| J186 | Poland, Opole Voivodeship, Brzeg County | Brzeg, Church of St Nicholas | gravestone | F, M | children | Abraham, Jadwiga and Barbara Schweitzer | after 1590 | children with flowers in their hands folded as if in prayer, the older girl wearing a grave wreath | Krzemińska-Szołtysek 2017, photo 97 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J187 | Poland, Opole Voivodeship, Brzeg County | Brzeg, castle, wall painting in the former duke's study | fresco – family tree | F, M | 2, infants | George Christopher (1583-1584), Barbara (1586-1586), Magdalena (1560-1562), NN daughter (n.d.-1561), children of Duke George II of Brieg of the Piast dynasty | ca. 1584 | wearing green wreaths on their heads | Krzemińska-Szołtysek 2017 |
| J188 | Poland, Opole Voivodeship, Brzeg County | Brzeg, castle | gravestone | NN | infants | NN | after 1610 | children standing with twigs in folded hands | Krzemińska-Szołtysek 2017, photo 116 |
| J189 | Poland, Opole Voivodeship, Brzeg County | Lewin Brzeski, Church of St Peter and St Paul | gravestone | F | adult, child | Johanka Bees of the Cordula family and her daughter Sabina Bees | after 1577 | girl with a wreath on her head | Krzemińska-Szołtysek 2017, photo 85 |
| J190 | Poland, Opole Voivodeship, Głubczyce County | Bogdanowice, Church of the Exaltation of the Holy Cross | gravestone | NN | child | child of the von Schneckenhaus family | d. 14 December 1589 | boy wearing a grave wreath | Krzemińska-Szołtysek 2017, 141, photo 54 |
| J191 | Poland, Opole Voivodeship, Głubczyce County | Dobieszów, Filial church of the Immaculate Conception of the Blessed Virgin Mary | gravestone | NN | NN | child of the Kokors family | d. 28 February 1593 | a child in a shirt, with flowers in hands folded as for prayer, wearing a grave wreath | Krzemińska-Szołtysek 2017, 144, photo 33 |
| J192 | Poland, Opole Voivodeship, Głubczyce County | Dobieszów, Filial church of the Immaculate Conception of the Blessed Virgin Mary | gravestone | F | child | Teresa Kokors | d. 27 May 1598 | child wearing a gown with a ruff, with a book in her hands folded as if for prayer, with long, loose hair, wearing a grave wreath | Krzemińska-Szołtysek 2017, 145, photo 38 |
| J193 | Poland, Opole Voivodeship, Głubczyce County | Głubczyce, Parish Church of the Nativity of the Blessed Virgin Mary | gravestone | F | adult | Agnes, daughter of Simon Müller of Rossmarkt | d. 1572 | standing girl in a renaissance dress, her hair loose, with a bouquet of flowers in her hands folded over her stomach, with a wreath on her head | Krzemińska-Szołtysek 2017, 149-150, Fig. 4 |
| J194 | Poland, Opole Voivodeship, Kędzierzyn-Koźle County | Bierawa, Parish Church of the Holy Trinity | gravestone | M | 2 | Johannes von Reiswitz | d. 15 February 1649 | boy with a bouquet in his hands folded as if in prayer, wearing a grave wreath | Krzemińska-Szołtysek 2017, 135-136, photo 80 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J195 | Poland, Opole Voivodeship, Kędzierzyn-Koźle County | Bierawa, Parish Church of the Holy Trinity | gravestone | M | 5, b. 9 May 1651 | Heinrich von Reiswitz | d. 1656 | boy with a bouquet in his hands folded as if in prayer, wearing a grave wreath | Krzemińska-Szołtysek 2017, 136-137, photo 82 |
| J196 | Poland, Opole Voivodeship, Kędzierzyn-Koźle County | Bierawa, Parish Church of the Holy Trinity | gravestone | F | children | two girls of the von Reiswitz family | after 1656 | with bouquets in their hands folded as if in prayer, wearing grave wreaths | Krzemińska-Szołtysek 2017, 136, photo 81 |
| J197 | Poland, Opole Voivodeship, Nysa County | Malerzowice, St Lawrence Church | gravestone | NN | child | child of the Rohr family | d. 1616 | boy with a bouquet in his hands folded as if in prayer, wearing a grave wreath | Krzemińska-Szołtysek 2017, 175-176, photo 51 a-b |
| J198 | Poland, Opole Voivodeship, Nysa County | Nysa, St James Church | gravestone | M | 10 and 4 | Johannes and Joachim Friedrich, sons of Heinrich Buchta of Buchtitz | d. in April and May 1600 | boys standing against a curtain, each holding a bouquet of artificial flowers in left hand | Krzemińska-Szołtysek 2017, photo 99 |
| J199 | Poland, Opole Voivodeship, Opole County | Krasna Góra, filial church of the Motherhood of the Blessed Virgin Mary | gravestone | F | child | Barbara Gelhorn | d. in December 1585 | child in dress with a ruff, hands folded as for prayer, wearing grave wreath | Krzemińska-Szołtysek 2017, 165-166, photo 27 |
| J200 | Poland, Opole Voivodeship, Opole County | Szydłowiec Śląski, Church of the Name of the Blessed Virgin Mary | gravestone | M | 2 months, 8 weeks, 7 months | Frederic Pückler d. 1613, Heinrich Pückler d. 1615, Caspar Pückler d. 1620, Christophorus Pückler d. 1625 | after 1628 | four boys in a row, holding hands, flowers in their hands folded on their chests | Krzemińska-Szołtysek 2017, 190-191, |
| J201 | Poland, Opole Voivodeship, Opole County | Szydłowiec Śląski, Church of the Name of the Blessed Virgin Mary | gravestone | F | 3 years, 8 months, 2 years | Ludomilla Pückler d. 1612, Elisabetha Pückler d. 1619, Marianna Pückler d. 1617, Hedwiga Pückler d. 1628 | after 1628 | four girls in a row, holding hands, flowers in their hands folded on their chests | Krzemińska-Szołtysek 2017, 192 |
| J202 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the western crypt B under the chancel | NN | 2-3 | burial 2 (coffin no. 6), mummy 18 | 18th c. | coffin bottom filling – sawdust | Grupa and Dudziński 2013; Grupa *et al.* 2014 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J203 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the western crypt B under the chancel | F | 1-2 | Maria Anna Szczuka | d. 1705 | cushion – herbs | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J204 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B under the chancel | M? F? | 1,5-2 | Stani Konopka (Stanisław or Stanisława) | 18th c. | mattress – moss, hay,<br>cushion – herbs, feathers,<br>sprinkled with flowers, relics of artificial flowers,<br>on the right parietal bone, a wreath, 8 cm in diameter, of common rue (*Ruta graveolens* L.) and southernwood (*Artemisia abrotanum* L.),<br>duvet – filling: moss, hay | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J205 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B under the chancel | NN | 2-4 | burial 13 (coffin no. 25) mummy no. 82 | 18th c. | cushion – wood shavings | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J206 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the western crypt A under the chancel | NN | 1-2 | burial 3 (coffin no. 6), mummy no. 5 | d. 1791 | mattress – hay, pillow – hay, pillowcase not preserved | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J207 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 1-2 | burial 4 (coffin no. 7), mummy no. 17 | 18th c. | cushion, mattress – coniferous needles | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J208 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | *Infans* I | burial 9 (coffin no. 11), mummy no. 81 | 1750 | cushion – hay, herbs, wreath of natural plants | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J209 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 0,5-1 | burial 10 (coffin no. 12), mummy no. 9 | 18th c. | cushion – herbs, mattress – hay, wreath of natural plants | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J210 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 0,5-1 | burial 12 (coffin no. 24) | 18th c. | mattress – hay | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J211 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 3-4 | burial 14 (coffin no. 30) mummy no. 8 | 18th c. | filling of the coffin bottom – herbs | Grupa and Dudziński 2013; Grupa *et al.* 2014 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J212 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 5-7 | burial 18 (coffin no. 34) mummy no. 21 | 18th c. | coffin bottom filling – herbs, mattress – herbs, pillow – herbs | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J213 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 3-4 | burial 21 (coffin no. 37) mummy no. 12 | 18th c. | filling the bottom of the coffin – herbs and large wood shavings | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J216 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 3-4 | burial 22 (coffin no. 13) mummy no. 38 | 18th c. | mattress – hay | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J217 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 1-2 | burial 23 (coffin no. 25) mummy no. 39 | 18th c. | cushion – herbs | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J218 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 0-5 months | burial 25 (coffin no. 41) mummy no. 10 | 1791 | mattress – hay | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J219 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 3 months | burial 27 (coffin no. 43) mummy no. 14 | 18th c. | filling the bottom of the coffin – herbs, hay, wood shavings | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J220 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 7-10 | burial 28 (coffin no. 44) mummy no. 20 | 1718 | filling of the bottom of the coffin – lots of herbs and flowers, boxwood (*Buxus sempervirens*) twigs evenly distributed along the sides of the coffin and on the surface of the body, coffin painted in cornflowers and roses, on the shorter side an inscription "IHS" surrounded by laurel leaves, at the legs "D CH 1718" | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J221 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A under the chancel | NN | 3-4 | burial 30 (coffin 46) mummy no. 30 | 18th c. | cushion – herbs, mattress – herbs | Grupa and Dudziński 2013; Grupa *et al.* 2014 |
| J222 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | ND | NN coffin no. 14 | ND | plant cushion filling, painted coffin, biretta, chasuble, maniple, cord, alb, habit, stockings, gloves | Dudziński *et al.* 2017, 62-63, 135, cat. 52 |
| J223 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | ND | NN coffin no. 15 | summer | linen cushion filled with herbs, painted coffin, biretta, surplice?/alb, habit, mattress | Dudziński *et al.* 2017, 63, 136, cat. 53 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J224 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt A | M | ND | NN coffin no. 6, burial nr 9 | ND | straw and herbs perhaps from a cushion or mattress, painted coffin, biretta, chasuble, stole, maniple, alb | Dudziński *et al.* 2017, 71-72, 146-147, cat. 67 |
| J225 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the western crypt A | M | 35-55 *maturus* | NN coffin no. 11 | ND | linen mattress filled with hay, silk pillow filled with hay and herbs, coffin interior – herbal mixture, grave robe, shirt, pasamon, stockings | Dudziński *et al.* 2015, 59-62, 86-87, cat. 33 |
| J226 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | ca. 50 | Cyprian of the Holy Trinity (Jakub Pogorzelski) coffin no. 17 | d. 17 June 1718 | cushion or mattress of linen filled with flowers and herbs, painted coffin, biretta, chasuble, stole, maniple, alb, habit/cassock, mattress, footwraps | Dudziński *et al.* 2017, 64-65, 137, cat. 55 |
| J227 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | ca. 41 | Józef of St Leonard (Józef Trojanowski) coffin no. 19 | d. 14 June 1719 | large quantity of sawdust, painted coffin, biretta, chasuble, surplice?/alb, cassock?, habit, pasamon, rosary, scapular | Dudziński *et al.* 2017, 66-67, 139-141, cat. 58 |
| J228 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the western crypt A | M | 30 | Marcin Leopold Stefan Szczuka coffin no. 4 | d. 7 January 1728 | aromatic cushion containing herbs, made of silk from which the grave clothes were sewn, housecoat sewn for the burial, cotton shawl, scapular | Dudziński *et al.* 2015, 48-59, cat. 32 |
| J229 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | 41 | Hilary of St Anthony (Antoni Saag) coffin no. 9 | d. 24 March 1754 | linen cushion filled with sawdust, large amount of sawdust inside coffin, painted coffin, chasuble, stole, maniple, alb, habit | Dudziński *et al.* 2017, 56-58, 130-131, cat. 47 |
| J230 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | 70 | Bernard of John the Baptist (Jan Kling) coffin no. 16 | d. 25 March 1755 | linen cushion filled with herbs, large number of shavings in coffin, painted coffin, biretta, chasuble, stole, maniple, surplice?, alb, shirt, habit, unidentified items of clothing, eggshells | Dudziński *et al.* 2017, 63-64, 136-137, cat. 54 |
| J231 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | 55 | Placidus of St Joseph (Placyd Piotrowski) coffin no. 5 | d. 27 October 1762 | linen cushion filled with herbs, painted coffin, biretta, alb, shirt, habit, crucifix in hands | Dudziński *et al.* 2017, 53, 126, cat. 43 |
| J232 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | 46 | Felicjan of St Joseph (Felicjan Brzozowski) coffin no. 12 | 9 October 1763 | linen cushion filled with herbs, linen mattress filled with herbs, painted coffin, biretta, chasuble, shawl, stole, maniple, alb, habit, stockings, crucifix worn on chest, pasamon, eggshells | Dudziński *et al.* 2017, 60-61, 133-134, cat. 50 |
| J233 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | 47 | Łukasz of St Stephen (Łukasz Skorupski) coffin no. 13 | d. 27 February 1765 | mattress and/or pillow of linen filled with sawdust, painted coffin, chasuble, maniple, habit | Dudziński *et al.* 2017, 62, 135, cat. 51 |
| J234 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | 27 | Damian of St Adrian (Adrian Dzwonkowski) coffin no. 24 | d. 1 February 1768 | small amount of sawdust in the upper body, no mattress or pillow, painted coffin, surplice? /alb, habit?, shirt | Dudziński *et al.* 2017, 71, 146, cat. 66 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| J235 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | 78 | Władysław of the Ascension (Jerzy Schwarc) coffin no. 4 | d. 2 August 1777 | linen cushion filled with sawdust, painted coffin, biretta, chasuble, stole, maniple, alb, cord, habit, footwraps | Dudziński *et al.* 2017, 52, 125-126, cat. 42 |
| J236 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | ND | NN coffin no. 11 | d. 1787 | linen cushion filled with hay, painted coffin, chasuble, gallon, stole, maniple, alb, cord, shirt, crucifix, scapular | Dudziński *et al.* 2017, 59-60, 132-133, cat. 49 |
| J237 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | 81 | Rajmund of St Joseph (Andrzej Mirecki)? coffin no. 10 | d. 12 February 1793? | linen cushion, with outer woollen cover, filled with herbs and sawdust, linen mattress filled with herbs and sawdust, painted coffin, biretta, chasuble, stole, maniple, alb, habit, shirt, shawl, trousers, gloves, shoes | Dudziński *et al.* 2017, 58-59, 131-132, cat. 48 |
| J238 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | 60 | Filip of St James (Filip Zdziebłowski) coffin no. 18 | d. 9 October 1798 | linen cushion filled with hay and sawdust, painted coffin, biretta, chasuble, stole, maniple, alb, habit, belt, crucifix | Dudziński *et al.* 2017, 65-66, 138, cat. 56 |
| J239 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | ND | Georgius Wermutter (probably) coffin no. 2 | d. July 1801 | coffin bottom filled with wood shavings, painted coffin, alb, habit?, belt, cap/hat, footwraps, crucifix in hands | Dudziński *et al.* 2017, 50, 124, cat. 40 |
| J240 | Poland, Podlaskie Voivodeship, Grajewo County | Szczuczyn, Church of the Name of the Blessed Virgin Mary | burial in the eastern crypt B | M | 85 | Joachim of St Joseph Calasanz (Antoni Karwowski) coffin no. 23 | d. 21 October 1821 | linen cushion filled with herbs, painted coffin, biretta, chasuble, stole/maniple, pasamon, alb, shirt, habit, stocking, unidentified items of clothing | Dudziński *et al.* 2017, 70-71, 145-146, cat. 65 |
| J241 | Poland, Pomeranian Voivodeship, Gdańsk County | Gdańsk, St John's Church | burial | NN | child | NN | modern era | artificial flowers attached to the inside of the coffin and placed on the body of the deceased, flowers made of blue satin silk – cornflower or common chicory, smaller flowers – forget-me-nots, paper flowers – white lily and wild rose | Trawicka 2010, 39 |
| J242 | Poland, Pomeranian Voivodeship, Tczew County | Gniew, St Nicholas Church, south crypt under St Anne's Chapel | crypt burial | NN | ND | ND | ND | wreath of brass wire, silk flowers and glass beads, fragment of an artificial flower, artificial flowers resembling tulips (?) or carnations | Grupa *et al.* 2015, 117-118 |
| J243 | Poland, Pomeranian Voivodeship, Tczew County | Gniew, St Nicholas Church, north-western part of the nave | burial | NN | ND | ND | ND | artificial flower set on a stem approximately 120 mm long, made of brass wire and silk fabric | Grupa and Nowak 2017, 159-172 |
| J244 | Poland, Pomeranian Voivodeship, Tczew County | Gniew, St Nicholas Church, north crypt of the church under St Catherine's Chapel | crypt burial | NN | *infans* I, 0,5-1 | skeleton no. 4 | last two decades of the 17$^{th}$ c. | three flowers made of brass wire and silk fabric, tied at the bottom with a silk ribbon, in addition to calyxes of artificial flowers, resembling white lilies, dog roses, violets or forget-me-nots, the flowers were part of wreaths or bouquets, along the whole length of the silk grave robe there were two rows of artificial flowers resembling carnations of various sizes | Grupa and Nowak 2017, 159-172 |

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| J245 | Poland, Pomeranian Voivodeship, Tczew County | Gniew, St Nicholas Church, north-western part of the nave | burial | NN | child | skeleton no. 4 | 17th c. | in the vicinity of the skull, the remains of two wreaths, one composed of 5 large and 15 small artificial flowers made of wire and silk, three twigs, the other wreath was made of natural plants, presumably placed above the first one | Grupa and Nowak 2017, 159-172 |
| J246 | Poland, Silesian Voivodeship, Bielsko-Biała County | Bielsko-Biała, parish church of St Nicholas | gravestone | F | children | Salomea d. 13 June 1621 and Susanna d. 24 August 1622 | after 1622 | girls with flowers in their hands folded as if for prayer | Krzemińska-Szołtysek 2017, 132-133, photo 79 |
| J247 | Poland, Silesian Voivodeship, Częstochowa County | Częstochowa, Basilica of the Discovery of the Holy Cross and the Nativity of the Blessed Virgin Mary | crypt burial no. 1 under the basilica floor | F | over 50 | NN | 17th c. | filling the coffin bottom:<br>wild elderberry (*Sambucus nigra* L.) – twigs, bog bilberry (*Vaccinium uliginosum* L.) – leaves, common hop (*Humulus lupulus* L.) – infructescence (cones),<br>holm oak (*Quercus robur* L.) – twigs,<br>mullein (*Verbascum* sp.) – flower/fruit perianth, hawkweed (*Hieracium* sp.) – inflorescence,<br>dill (*Anethum graveolens* L.) – broken stem fragments | Galera *et al.* 2013 |
| J248 | Poland, Silesian Voivodeship, Częstochowa County | Częstochowa, Basilica of the Discovery of the Holy Cross and the Nativity of the Blessed Virgin Mary | crypt burial no. 2 under the basilica floor | M? | *adultus/ maturus* | NN | 17th c. | coffin-bottom filling, cushion: white mullein (*Verbascum lychnitis* L.) – fruiting shoot | Galera *et al.* 2013 |
| J249 | Poland, Silesian Voivodeship, Częstochowa County | Częstochowa, Basilica of the Discovery of the Holy Cross and the Nativity of the Blessed Virgin Mary | crypt burial no. 2 under the basilica floor | M | ca. 30 | NN | 17th c. | filling of the coffin bottom without mattress:<br>mullein (*Verbascum* sp.) – flower/fruit inflorescence, yarrow (*Achillea millefolium* L.) – inflorescence, common oregano (*Origanum vulgare* L.) – fragments of inflorescence and fruit,<br>bladder campion (*Silene vulgaris* (Moench) Garcke) – calyx with fruit, thyme (*Thymus* sp.) – fragments of stems, inflorescences, fruit, common tansy (*Tanacetum vulgare* L.) – inflorescences | Galera *et al.* 2013 |
| J250 | Poland, Silesian Voivodeship, Częstochowa County | Częstochowa, Basilica of the Discovery of the Holy Cross and the Nativity of the Blessed Virgin Mary | crypt burial no. 2 under the basilica floor | M | ca. 40 | NN | 17th c. | filling of coffin bottom, cushion: black horehound (*Ballota nigra* L.) – calyx | Galera *et al.* 2013 |
| J251 | Poland, Silesian Voivodeship, Częstochowa County | Częstochowa, Basilica of the Discovery of the Holy Cross and the Nativity of the Blessed Virgin Mary | crypt burial no. 2 under the basilica floor | F | *adultus* | NN | 17th c. | coffin bottom filling: dill (*Anethum graveolens* L.) – fragments of broken stems, black henbane (*Hyoscyamus niger* L.) – calyx, seeds | Galera *et al.* 2013 |

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|---|---|---|---|---|---|---|---|---|---|
| J252 | Poland, Silesian Voivodeship, Częstochowa County | Częstochowa, Basilica of the Discovery of the Holy Cross and the Nativity of the Blessed Virgin Mary | crypt burial nr 2 | F | *adultus* | NN | 17th c., after 1611 | filling the coffin bottom: mugwort (*Artemisia* sp.) – stem, inflorescence, cornflower (*Centaurea* sp.) – inflorescence, catnip (*Nepeta* sp.) – fruit, fruiting stem, common toadflax (*Linaria vulgaris* L.) – fruit, seed, chamomile (*Chamomilla recutita* L.) – inflorescence | Galera *et al.* 2013 |
| J253 | Poland, Silesian Voivodeship, Częstochowa County | Częstochowa, Basilica of the Discovery of the Holy Cross and the Nativity of the Blessed Virgin Mary | crypt burial nr 1 | NN | ca. 5 | NN | 17th c. | burial on a board laid on the lid of the coffin of an adult, under the head a layer of moss and plants, around the head textile decorations – flowers on wire stems, forming a wreath or decorative cap | Galera *et al.* 2013 |
| J254 | Poland, Silesian Voivodeship, Pszczyna County | Pszczyna, crypt of the All-Saints Church | burial | M | 7 | Weighard von Promnitz (?) | d. 1646 | cushion and mattress: common hop cones, wood shavings from coniferous trees, filling of coffin bottom: plum seeds, cherry seeds, acorns, buckwheat, wreath – 5 artificial flowers from copper wire, glass beads, silk yarn, silk shirt, cap, golden ring, on the coffin lid – portrait of a boy in a laurel frame | Stankiewicz 2015, 101-102; Botor 2012 |
| J255 | Poland, Silesian Voivodeship, Racibórz County | Czerwięcice, Church of Our Lady of the Rosary, former cemetery chapel | gravestone | M | 3 | Adam Lesota | d. 1591 | boy in a shirt with a ruff, with a cross in his hands, wearing a grave wreath | Krzemińska-Szołtysek 2017, 143, photo 56 |
| J256 | Poland, Silesian Voivodeship, Tarnowskie Góry County | Kamieniec, Parish Church of the Nativity of St John the Baptist | gravestone | F | 5 years and 3 months | Margeta Sedlniczka d. 1583, Jan Sedlniczki d. 1573 | after 1583 | boy in swaddles, girl in a chemise, hair loose, flower wreath on head | Krzemińska-Szołtysek 2017, 153-154, photo 21 |
| J257 | Poland, Silesian Voivodeship, Tarnowskie Góry County | Tarnowskie Góry, Parish Church of St Peter and St Paul | gravestone | M | 1 year 22 weeks | Georg Schoman | d. 24 January 1614 | boy with a bouquet in his hands folded on his stomach | Krzemińska-Szołtysek 2017, 195-196, photo 72 |

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| J258 | Poland, Subcarpathian Voivodeship, Przemyśl County | Przemyśl, Archcathedral, crypt under the Chapel of the Holy Cross | crypt burial | NN | 4-5 | NN | 18th c. | pillow: common oregano (*Origanum vulgare* L.) – seeds, flower or fruit fragments, shoots (with numerous flowers or fruit);<br>ragwort (*Senecio jacobaea* L.) – seeds;<br>cross gentian (*Gentiana cruciata* L.) – shoot fragments, fruit whole and fragments, seeds;<br>common figwort (*Scrophpularia nodosa* L.) – fruit (seed-filled), seeds;<br>grasses (*Poaceae* indet.) – inflorescence (spike), fragment, kernels (husked); *Compositae* (*Asteraceae* indet. ) – lanceolate leaves surrounding inflorescence, bundle of pappus; St John's wort (*Hypericum perforatum* L.) – seeds; prickly sow-thistle (*Sonchus asper* (L.) Hill.) – seeds;<br>Mexican marigold (*Tagetes erecta* L.) – seed; bouquet of natural plants tied with string: common oregano (*Origanum vulgare* L.) – seed, flowers or fruit, stem fragments (with numerous flowers or fruit); common ragwort (*Senecio jacobaea* L.) – seed | Drążkowska 2014; Pińska *et al.* 2015, 267-320 |
| J259 | Poland, Subcarpathian Voivodeship, Przemyśl County | Przemyśl, Archcathedral, crypt under the Chapel of the Holy Cross | crypt burial | M | 76 | bishop Stanisław Wykowski | d. 16 August 1776 | silk cushion:<br>*Compositae* (*Asteraceae* indet.) – scaly leaves surrounding the inflorescence, tubular flowers, inflorescence fragments; purple loosestrife (*Lythrum salicaria* L.) – seeds, whole and 4 fragments of fruit (filled with seeds); ragwort (*Senecio jacobaea* L.) seeds, scaly leaves surrounding the inflorescence<br>viper's bugloss (*Echium vulgare* L.) – seeds, stems (with fruit fragments and single seeds), fruit fragments;<br>hemp-agrimony (*Eupatorium cfr cannabinum* L.) – pappus, seeds, St John's wort (*Hypericum perforatum* L.) – seeds; common mouse-ear chickweed (*Cerastium cfr holosteoides* Fr. Emend Hyl.) – seeds; hyssop (*Hyssopus officinalis* L.) – seed | Drążkowska 2014; Pińska *et al.* 2015, 267-320 |

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|---|---|---|---|---|---|---|---|---|---|
| J260 | Poland, Subcarpathian Voivodeship, Przemyśl County | Przemyśl, Archcathedral, crypt under the Chapel of the Holy Cross | crypt burial | M | 61 | bishop Walenty Franciszek Salezy Wężyk | d. 25 October 1766 in Brzozowo | silk cushion:<br>hyssop (*Hyssopus officinalis* L.) – calyxes, stem fragments (with numerous flowers or fruit), seeds, fruit; prickly sow-thistle (*Sonchus asper* (L.) Hill. ) – seeds; creeping bentgrass (*Agrostis stolonifera* L.) – seeds (husked), husks; *Compositae* (*Asteraceae* indet.) – tubular flowers (single); shepherd's purse (*Capsella bursa-pastoris* (L.) Medik.) – fruit halves; common sowthistle (*Sonchus oleraceus* L.) – seed;<br>stocking filling:<br>*Labiatae* (*Lamiaceae* indet.) – calyxes, seed,<br>common basil (*Ocimum basilicum* L.) – seed, calyx, fruit; Compositae (*Asteraceae* indet.) – inflorescences, scaly leaves surrounding inflorescence, seed; rosemary (*Rosmarinus officinalis* L.) – seed, fruit, hyssop (*Hyssopus officinalis* L.) – calyxes, seed, stem fragments (with numerous flowers or fruit); chamomile (*Chamomilla recutita* (L.) Rauschert) – seeds;<br>clover (*Trifolium* sp.) – crown petals;<br>white clover (*Trifolium repens* L.) – crown petals; water chickweed (*Myosoton aquaticum* (L.) Moench) – seeds;<br>grasses (*Poaceae* indet.) – seeds (husked);<br>moss (*Bryophyta*) – stem fragments; yarrow (*Achillea millefolium* L. S. Str.) – seed; yellow chamomile (*Anthemis tinctoria* L.) – seed;<br>millet (*Panicum miliaceum* L.) – lump of matter with numerous fragments of chaff;<br>common knotgrass (*Polygonum aviculare* L.) – seed;<br>creeping buttercup (*Ranunculus cfr repens* L.) – seed; prickly sow-thistle (*Sonchus asper* (L.) Hill. ) – seed; common sowthistle (*Sonchus oleraceus* L.) – seed; thuja (*Thuja* sp.) – stem fragments<br>embalming herbs:<br>lavender (*Lavandula*); rosemary (*Rosmarinus officinalis* L.); basil (*Ocimum basilicum* L.); hyssop (*Hyssopus officinalis* L.); yarrow (*Achillea millefolium*); bay laurel (*Laurus nobilis*) | Drążkowska 2014; Pińska *et al.* 2015, 267-320 |

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| J261 | Poland, Subcarpathian Voivodeship, Przemyśl County | Przemyśl, Archcathedral, crypt under the Chapel of the Holy Cross | crypt burial | M | 62 | bishop Hieronim Wielogłowski | d. 7 April 1765 | silk cushion filled with hay:<br>grasses (*Poaceae* indet. ) – kernels (pleached), husks; common mouse-ear chickweed (*Cerastium holosteoides* Fr. Emend Hyl.) – fruit, seeds;<br>meadow clover (*Trifolium* cfr *pratense* L.) – crown petals; meadow fescue (*Festuca pratensis* Huds.) – kernels (husked); narrow-leaved rattle (*Rhinanthus serotinus* (Schönh.) Oborný) – fruit, seeds; common meadow-grass (*Poa pratensis* L. S. Str.) – kernels (husked); Compositae (*Asteraceae* indet.) – scaly leaves surrounding inflorescence, 1 entire rosette of scaly leaves; meadow clover (*Trifolium pratense* L.) – flower fragments, sweet vernal grass (*Anthoxanthum odoratum* L. S. Str.) – flowers, kernel (naked); meadow foxtail (*Alopecurus* cfr *pratensis* L.) – kernels (husked); crested dog's-tail (*Cynosurus cristatus* L.) – inflorescence fragment (spike), kernels (husked); rough meadow-grass (*Poa trivialis* L.) – seed (husked); white clover (*Trifolium repens* L.) – flower | Drążkowska 2014; Pińska *et al.* 2015, 267-320 |
| J262 | Poland, Subcarpathian Voivodeship, Przemyśl County | Przemyśl, Archcathedral, crypt under the Chapel of the Holy Cross | crypt burial | M | 77 | bishop Józef Tadeusz Kierski | d. 6 January 1783 in Brzozowo | embalming herbs: rosemary (*Rosmarinus officinalis* L.); thyme (*Thymus* L.); marjoram (*Origanum majorana*); buttercup (*Ranunculus acris* L.); field sorrel (*Rumex acetosella*); sowthistle (*Sonchus asper*) | Drążkowska 2014; Pińska *et al.* 2015, 267-320 |
| J263 | Poland, Świętokrzyskie Voivodeship, Sandomierz County | Sandomierz, Dominican church of St James, original location unknown | engraved floor gravestone | NN | NN | NN | beginning of 2nd half of the 13th century | gravestone with representation of a sword and pilgrim's staff? (abbot staff?) | Florek 2013, 56 |
| J266 | Poland, Świętokrzyskie Voivodeship, Starachowice County | Wąchock, Monastery Church of St Mary and St Florian and Cistercian Monastery, original location unknown | engraved floor gravestone | NN | NN | NN | 13th c. | gravestone with representation of a sword and pilgrim's staff? (abbot staff?) | Florek 2013, 57 |
| J267 | Poland, West Pomeranian Voivodeship, Koszalin County | Koszalin, former Cistercian convent (now the Holy Trinity Orthodox Church), monastery cemetery | burial | F | *maturus*? | grave 1 | between the mid-13th and early-14th centuries (based on pottery) | traces of a wooden coffin, a soil sample was taken from the burial fill, it contained a single burnt cereal grain fragment, its poor state of preservation made it impossible to determine the taxon | Abramów and Bienias 2013; Abramów *et al.* 2015, 191-235 |

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| J268 | Poland, West Pomeranian Voivodeship, Koszalin County | Koszalin, former Cistercian convent (now the Holy Trinity Orthodox Church), monastery cemetery | burial | F | *maturus* II/ *senilis* – died after 50 | grave 7 | between mid-13th and early-14th century (based on pottery), lack of furnishings indicates a Christian cemetery | the remains of a wooden coffin made of pine (*Pinus sylvestris* L.), a small fragment of belemnite was found near the foot, an unburnt seed of common plantain (*Plantago major*) and a burnt fragment of probably a seed were found, poor state of preservation of the other seed made it impossible to determine the taxon | Abramów and Bienias 2013; Abramów *et al.* 2015, 191-235 |
| J269 | Poland, West Pomeranian Voivodeship, Słupsk County | Słupsk, St Jack's Church | crypt burial | F | 70 | Anna de Croy | d. 1660 | cushion: common hop (*Humulus lupulus*), mugwort (*Artemisia*), imperforate St John's Wort (*Hypericum maculatum*) | Rawa-Szubert 1981, 76 |
| J270 | Poland, West Pomeranian Voivodeship, Słupsk County | Słupsk, St Jack's Church | crypt burial | M | 64 | Ernest Bogusław de Croy | d. 1684 | cushion: common hop (*Humulus lupulus*), mugwort (*Artemisia*), imperforate St John's Wort (*Hypericum maculatum*), rosemary (*Rosmarinus officinalis*) | Rawa-Szubert 1981, 76 |
| J271 | Poland, West Pomeranian Voivodeship, Stargard County | Stargard, Church of the Blessed Virgin Mary Queen of the World | crypt burial | ND | ND | NN | after 1631 | cushion filled with common hop, carnation bouquets, juniper/pepper painted blue and gilded, nutmeg | *Dziennik pisany z krypty*... |
| J272 | Poland, West Pomeranian Voivodeship, Stargard County | Stargard, former Augustinian church | burial | NN | child | NN | 17th-18th c. | fragments of a grave wreath | Drążkowska 2017, 177-191 |
| J273 | Poland, West Pomeranian Voivodeship, Szczecin County | Szczecin, Castle Church, current location unknown | posthumous portrait | M | 45 | Duke Philip II of Pomerania-Stettin | d. 3 February 1618 | man on a catafalque, on his chest a wreath of flowers in two colours | anonymous, ca. 1618, *Ölgemälde von Herzog Philipp II. von Pommern-Stettin auf dem Totenbett* |
| J274 | Poland, West Pomeranian Voivodeship, Szczecin County | Szczecin, Castle Church (National Museum in Szczecin, deposit from Merseburg Cathedral collection) | posthumous portrait | M | 43 | Duke Francis I of Pomerania | d. 27 November 1620 | man on a catafalque, in his hands a decoration of green twigs with an inscription | anonymous, 1620, *Portrait of Duke Francis I of Pomerania on catafalque* |

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|---|---|---|---|---|---|---|---|---|---|
| K1 | Czech Republic, Central Bohemian Region | Kostelec nad Černými lesy | posthumous portrait buried in Kostelec nad Černými lesy, Eastern Prague district, in a private crypt | M | 24 | Albrecht Jan Smiřický of Smiřice | d. 18 November 1618 | a young man on white and black fabrics spread on the floor, with a cushion under his head, wearing a wreath on his head | Sadeler 1618, *Albrecht Jan Smiřický auf dem Totenbett* |
| K2 | Czech Republic, Central Bohemian Region | Prague, St George's Monastery, side aisle of the basilica | burial | NN | child | grave 24 | 16th-18th c. | wire wreath, artificial flowers | Borkowský 1975, quoted by: Beranová 1989, 269-280, |
| K3 | Czech Republic, Central Bohemian Region | Prague, St George's Monastery, side aisle of the basilica | burial | NN | NN | grave 35 | 16th-18th c. | wire wreath, artificial flowers | Borkowský 1975, quoted by: Beranová 1989, 269-280, |
| K4 | Czech Republic, Central Bohemian Region | Prague, Church of the Holy Trinity (formerly St Anthony's) | cemetery burial – mass grave | ND | ND | NN | 2nd half of the 17th century-1st half of the 18th century | parts of wreaths or headdress decorations – artificial metal flowers | Beranová 1989, 269-280 |
| K5 | Czech Republic, Central Bohemian Region | Prague, St Vitus Cathedral, royal crypt | crypt burial | F | 12 | Eleonora, daughter of Maximillian II. | d. 1 March 1580, buried: 18 March 1580 | wreath on the head, on the chest a wreath of bitter orange leaves (*Citrus aurantium*) and rosemary leaves (*Rosmarinus officinalis*), in the hands remains of a plant resembling bay-laurel (*Laurus nobilis*) | Beneš *et al.* 2012, 106-107 |
| K6 | Czech Republic, Olomouc Region | Velké Losiny, castle | catafalque portrait | NN | NN | NN | NN | a child in a black habit, girded by a cord with a large white flower, a rosary in his hands, along and around the body rosemary wreaths tied with bows | Stankiewicz 2015, 104 |
| K7 | Czech Republic, Olomouc Region | Velké Losiny, castle | catafalque portrait | M | 1,5 | Karl Zdeněk of Žerotín | d. 22 April 1620 | body on catafalque upholstered with black cloth, wearing a white dress, on child's head a wreath of myrtle and carnation flowers, jewellery – bracelets and a ring, draped with carnation flowers, he also holds them in his hands | Stankiewicz 2015, 103-104 Fig. 18 |
| K8 | Czech Republic, South Moravian Region | Mikulov, St Wenceslas Church, presbytery | burial | F | 17 | Marketa Františka Lobkowicz, née von Dietrichstein | d. 1617 | hands folded on stomach, rosary in hands, face covered with silk shawl, two pillows filled with human hair, Spanish style dress, velvet cloak, lace collar, silk stockings, rings, lining of wood shavings, sprinkled with myrtle sprigs | Stankiewicz 2015, 102; Drozdová, 2006; Petsch 2006 |
| L1 | Slovakia, Bratislava Region | Bratislava | posthumous portrait | ND | 6 months | child of the Dobai family | d. 1737 | two cushions, headboard and mantle draped with rosemary sprigs, rosemary wreath on the head tied under the chin with a ribbon, small white flower in hands, angel with a bouquet of multicoloured flowers in his left hand and a crown in his right hand | Stankiewicz 2015, 104 Fig. 26 |

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| L2 | Slovakia, Bratislava Region | Bratislava, Slovenská Národná Galéria | catafalque portrait | F | adult | Catherine Horvath-Stansith, née Kissová | 1670-1700 | a sprig of rosemary in the hands | anonymous, ca. 1670-1700, *Posmrtný portrét K. Horvath-Stansithovej, rod. Kissovej* Fig. 23 |
| L3 | Slovakia, Bratislava Region | Bratislava, Slovenská Národná Galéria | catafalque portrait | M | adult | Boldizsár Horvath-Stansith | 1678 | sprigs of rosemary in the hand, placed on clothing and on bedding | anonymous, 1678, *Posmrtný portrét B. Horvatha-Stansitha* |
| L4 | Slovakia, Trnava Region | Trnava, Monastery of the Poor Clares | posthumous portrait | F | adult | Margaret Fregách de Ghyms | d. 1750 | body decorated with cut roses of light colour, on the head a wreath, on either side of the head, on a silk cushion, two floral bouquets and a third below the hidden hands, folded on the abdomen, to the right of the coffin a still life: an hourglass, a skull, a broken candle, a rose shedding its petals | Brand(?) 1750, *Posthumous Portrait of Catharina Margaritha Forgách de Ghymes, Claritian Nun in Trnava († 25. 8. 1750)* |
| M1 | Switzerland, Basel-Stadt | Basel, cathedral | church burial | M | 57 | Johann II. Senn von Münsingen | d. 30 June 1365 | body in coffin covered with sage sprigs (*Salvia officinalis*) | Sanke 2012, 475-479 |
| M2 | Switzerland, Basel-Stadt | Historisches Museum Basel | coffin portrait | F | child | Dorothea Jäcklin | 1823 | a girl in a coffin, in her folded hands a bouquet of blue flowers (common chicory?) | Ott 2016, 33-38 |
| M3 | Switzerland, Basel-Stadt | Basel, Carmelite church | church burial – side aisle | F | 35-55 | NN | 16th-17th c. | body in a coffin, resting on wood shavings, mummification, high concentration of HCl | Hotz *et al.* 2011, 121-135 |
| M4 | Switzerland, Grisons | Müstair, St John's church at the Benedictine monastery | burials in the crypt under the Grace Chapel | NN | 0-1,5 | NN | NN | 4 burial crowns, crowns in poor state of preservation, consisted of artificial flowers, made of iron wires and non-ferrous metals, fabrics, paper and glass beads, most of the crowns were made of an iron hoop, wrapped with elements of non-ferrous metal and fabrics, to which bouquets of artificial flowers and wire braids were vertically attached | Cassitti 2018, 96-97 |
| M5 | Switzerland, Grisons | Müstair, St John's church at the Benedictine monastery | burials in the crypt under the Grace Chapel | F | adult women | NN | NN | 7 grave crowns, burials of nuns | Cassitti 2018, 96-97 |
| M6 | Switzerland, Grisons | Müstair, St John's church at the Benedictine monastery | burial in the crypt under the Grace Chapel | M | 65-74 | NN | NN | grave crown | Cassitti 2018, 96-97 |
| M7 | Switzerland, Grisons | Müstair, St John's church at the Benedictine monastery | burial in the crypt under the Grace Chapel | M | 52-63 | NN | NN | grave crown, burial of a clergyman? | Cassitti 2018, 96-97 |
| M8 | Switzerland, Grisons | Müstair, St John's church at the Benedictine monastery | burial in the crypt under the Grace Chapel | NN | NN | NN | NN | grave crown, burial of a clergyman? | Cassitti 2018, 96-97 |
| M9 | Switzerland, Vaud | Lausanne, Cathedral of the Blessed Virgin Mary | church burial | M | 34 | Roger de Vico Pisano, Bishop of Lausanne | d. 5 March 1220 | burial discovered in 1880, near the feet was a wooden chalice containing grain | Sanke 2012, 351 |

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|---|---|---|---|---|---|---|---|---|---|
| N1 | Sweden, Blekinge County | Karlskrona, Admiralty Church | crypt burials | F, M | ND | ND | modern era | grave wreaths made of artificial or natural myrtle, laurel leaves, boxwood, lingonberry (*Vaccinium vitis-idaea*), wreaths and bouquets of natural and artificial flowers | Nyberg 2010, 15-33 |
| N2 | Sweden, Blekinge County | Karlskrona, Admiralty Church | crypt burials | F | young adults | ND | modern era | wreaths of myrtle on the heads of 4 women | Nyberg 2010, 15-33 |
| N3 | Sweden, Blekinge County | Karlskrona, Admiralty Church | crypt burial | M | young adult | ND | modern era | sprigs of myrtle arranged on chest, one sprig of myrtle in hand | Nyberg 2010, 15-33 |
| N4 | Sweden, Blekinge County | Karlskrona, Admiralty Church | crypt burial | F | child | ND | modern era | girl with a bouquet in her hands, bouquet includes carnations and a lemon | Nyberg 2010, 15-33 |
| N5 | Sweden, Blekinge County | Karlskrona, Admiralty Church | crypt burial | F | adult | ND | modern era | woman covered from the middle of her body with conifer twigs | Nyberg 2010, 15-33 |
| N6 | Sweden, Jämtland County | Revsund, parish church | posthumous portrait | F | 2.5 | Gulovia Olai | d. 1637 | a girl in a bed with a red curtain, wearing a white robe, her long hair loose, a bouquet of wild (?) flowers in her hands folded on her stomach, depicted as older than the deceased's true age indicates | Sidén 2016, 135 |
| N7 | Sweden, Jönköping County | Brahekyrkan, Visingsö | crypt burial | F | 79 | Margareta Brahe | d. 1638 | probably red rose petals, due to the state of preservation of the burial it was not possible to determine whether they were originally the mattress filling | Nyberg 2013 |
| N8 | Sweden, Jönköping County | Brahekyrkan, Visingsö | crypt burial | F | 23 | Elsa Beata Brahe | d. 5 April 1653, buried 28 August 1653, second funeral: 1662 | the deceased rests on a mattress and pillow sewn from red silk satin, with which the inner walls of the coffin are also covered, the mattress and pillow being filled with crushed plants, probably common hop, and rose petals | Nyberg 2013 |
| N9 | Sweden, Östergötland County | Linköping, St Peter's Cathedral | crypt burials | F, M | ND | ND | ND | grave wreaths with natural plants in burials of both sexes; moss, straw, plant matter in coffins | Tagesson 2015, 19-38 |
| N10 | Sweden, Östergötland County | Norrköping, St Nicholas Church | burial | NN | ND | NN | 2nd half of the 16th c. | grave crown | Tagesson 2015, 19-38 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| N11 | Sweden, Skåne County | Lund, cathedral | burial | M | 74 | Peder Winstrup, Bishop of Lund | d. December 1679 buried: February 1680 | mummified body, preserved: linen embroidered shirt, velvet sleeves, leather cape and gloves, near the bishop's feet found ca. 5-6-month-old foetus; plants from inside the burial: common juniper (*Juniperus communis*), common hazel (*Corylus avellana*), hemp (*Cannabis sativa*), common hop (*Humulus lupulus*), buckwheat (*Fagopyrum esculentum*), black bindweed (*Fallopia convolvulus*), lamb's quarters (*Chenopodium album*), mouse-ear chickweed (*Cerastium cf. fontanum*), corn spurry (*Spergula arvensis*), field mustard, charlock (cf. *Sinapis arvensis*), common cherry (*Prunus cerasus*), common flax (*Linum usitatissimum*), common boxwood (*Buxus sempervirens*), small-leaved linden (*Tilia cordata*), garden dill (*Anethum graveolens*), common carrot (*Daucus carota*), common bugloss (*Anchusa officinalis*), hyssop (*Hyssopus officinalis*), lavender (*Lavandula angustifolia*), lemon balm (*Melissa officinalis*), black henbane (*Hyoscyamus niger*), black nightshade (*Solanum nigrum*), dwarf elderberry (*Sambucus ebulus*), southernwood (*Artemisia abrotanum*), wormwood (*Artemisia absinthium*), marigold (*Calendula officinalis*), cornflower (*Centaurea cyanus*), sow thistle (*Sonchus oleraceus*), dwarf everlast (*Helichrysum arenarium*), sedge (*Carex* sp.), oat (*Avena sativa*), barley (*Hordeum vulgare*), rye (*Secale cereale*), foxtail (*Setaria* sp.), meadowgrass (*Poaceae* indet.) | Lagerås 2016a, 2016b |
| N12 | Sweden, Södermanland County | Strängnäs, cathedral | royal crypt burial | M | 5 months | Gustav Adolf | d. 1 August 1652, buried 5 September 1652 | long outer robe decorated with lace, wreath of artificial flowers on the cap, beads strung on a metal wire bent in the shape of small flowers, inscription on the coffin: „Christianorum Mors somnus est" | Nyberg 2013 |
| N13 | Sweden, Stockholm County | Stockholm, Nordiska Museet | posthumous portrait | M | 10 hours | Carolus Gustafsson Horn | d. 27 February 1662 | a boy on a catafalque covered with red fabric, wearing a red brocade robe, resting on a cushion, on his head a cap with a pearl jewel, in his left hand a pink carnation, above the child an inscription in a cartouche supported by two angels, one with a laurel wreath and the other with a palm branch in hand | Sidén 2016, 136 author: Joachim Neiman from Turku, Finland |
| N14 | Sweden, Stockholm County | Stockholm, St Clare Church | cemetery burial | M | 20-24 | skeleton 34 | 1700-1797 | plant remains beneath the skeleton – possibly of a cushion | Hansson 2003, 72-80 |
| N15 | Sweden, Stockholm County | Stockholm, St Clare Church | cemetery burial | F | 25-65 | skeleton 35 | 1700-1798 | greater musk-mallow (*Malva alcea* L.) under the skeleton | Hansson 2003, 72-80 |
| N16 | Sweden, Stockholm County | Stockholm, St Clare Church | cemetery burial | F | 35-55 | skeleton 33 | 1700-1799 | plant remains beneath the skeleton, possibly the remains of a cushion | Hansson 2003, 72-80 |
| N17 | Sweden, Stockholm County | Stockholm, St Clare Church | cemetery burial | ND | 14-17 | skeleton 61 | 1700-1800 | trace of a metal rim with textile fragments on the skull – remains of a burial crown | Hansson 2003, 72-80 |

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|---|---|---|---|---|---|---|---|---|---|
| N18 | Sweden, Stockholm County | Stockholm, St Clare Church | cemetery burial | ND | child | skeleton 59 | 1700-1800 | a metal rim with textile fragments on the skull – remains of a burial crown | Hansson 2003, 72-80 |
| N19 | Sweden, Uppsala County | Castle Skokloster near Stockholm (painted in Lüneburg) | posthumous portrait | M | 4 months | Hannibal Gustaf Wrangel af Salmis | d. 8 January 1643 | boy on a green bed with white sheets lined with lace, wearing a lace cap and a wreath decorated with pearls, in white silk robe with lace, a bouquet of artificial red flowers in his folded hands, a cross made of two green branches on his chest, the deceased sprinkled with sprigs of rosemary or myrtle | Sidén 2016, 134-135<br>Fig. 25 |
| N20 | Sweden, Uppsala County | Uppsala, cathedral | crypt burial | M | 64 | king Gustav Vasa | d. 29 September 1560 | embalming: valerian (*Valeriana officinalis*) | Nyberg 2010, 15-33 |
| N21 | Sweden, Västmanland County | Sura, church | crypt burial | NN | child | burials of Soldan family | 18th c. | newborn wrapped in cloth with textile flowers sewn onto it and perhaps partly wrapped in a veil?, floral wreath on head, bouquet found near hand, on coffin lid a crown made of thread with silver braiding | Jonsson 2009 |
| N22 | Sweden, Västmanland County | Sura, church | crypt burial | ND | ND | burials of Soldan family | 18th c. | body laid on a bedding of sawdust and hay | Tagesson 2015, 19-38 |
| 01 | United Kingdom, ND | NN, currently Denver Art Museum | deathbed portrait | NN | child | NN | 1624 | in bed, on a pillow, covered with a duvet, wearing a veil and a bonnet on head, cut flowers on the duvet: daffodil, rose, laurel leaves, rosemary sprigs, boxwood leaves | anonymous, 1624, *Portrait of a Dead Child...* |
| 02 | United Kingdom, East Midlands, Derbyshire | Derbyshire, Dale Abbey | burial | M | adult | NN | Middle Ages | man in a wooden coffin, resting on the green leaves of common ligustrum (*Ligustrum vulgare* L.) | Gilchrist and Sloane 2005b, 124 |
| 03 | United Kingdom, East Midlands, Lincolnshire | Barton-upon-Humber, St Peter's | church burial | ND | ND | ND | ND | pillow filled with grass | Gilchrist and Sloane 2005b, 147 |
| 04 | United Kingdom, East of England, Hertfordshire | St Albans, cathedral | church burial – nave | ND | ND | NN | Middle Ages | woollen clothes, a hazel staff in hand | Gilchrist and Sloane 2005b, 165, 175 |
| 05 | United Kingdom, East of England, Norfolk | Norwich, cathedral | burial | M | ND | bishop Lyhert | d. 1472 | wooden coffin, a bundle of heather on the feet of the deceased | Gilchrist and Sloane 2005b, 125 |
| 06 | United Kingdom, East of England, Norfolk | Wymondham, abbey | burial | NN | foetus | NN | Middle Ages | foetus placed in a linen cloth filled with sodium, cumin and coriander (seeds) and wood shavings, all placed in a linen bag filled with cumin, then dipped in resin and placed in a lead shroud | Gilchrist and Sloane 2005b, 109 |
| 07 | United Kingdom, Greater London | London, St Mary Spital (Blessed Virgin Mary without Bishopsgate) | cemetery burials | ND | adult | NN | ca. 1200-1400 | coffin lining – ashes in three burials | Gilchrist and Sloane 2005a |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| 08 | United Kingdom, Greater London | London, St Mary Spital (Blessed Virgin Mary without Bishopsgate) | cemetery burial | ND | adult | NN | ca. 1200-1400 | coffin lining – ashes containing domestic waste – mammal bone, mussel shell, fish bones, burnt flint, pottery and tile fragments, iron objects (nails?), charcoal | Gilchrist and Sloane 2005a, 122 |
| 09 | United Kingdom, Greater London | London, St Mary Spital (Blessed Virgin Mary without Bishopsgate) | cemetery burial | ND | adult | NN | ca. 1200-1400 | coffin lining – ashes | Gilchristand Sloane 2005a |
| 010 | United Kingdom, Greater London | London, St Mary Spital (Blessed Virgin Mary without Bishopsgate) | cemetery burial | M | 26-45 | NN | 1235 | pilgrim's staff in the grave | Gilchrist and Sloane 2005a |
| 011 | United Kingdom, Greater London | London, Fulham Pottery | posthumous portrait | F | 6 | Lydia Dwight | d. 3 March 1674 | a stoneware sculpture depicting the bust of a girl resting on a cushion, wearing a bonnet on her head, a shroud, and holding a bouquet of natural flowers in folded hands, among which tulips and anemones can be identified | *Lydia Dwight Dead*; Litten 2002, 49, dwg. 5 |
| 012 | United Kingdom, Greater London | London Spitalfields, Christ Church | burial | ND | ND | burial 2696 | 18th-19th c. | coffin filled to the brim with sawdust, box containing wood shavings at the feet of the deceased in the coffin (for viscera?) | Mytum and Burgess (ed.) 2018, 82-83 |
| 013 | United Kingdom, Greater London | London Spitalfields, Christ Church | burial | F | less than 1 year | burial 2503 | 1826 | lead coffin, with wooden inner coffin, bottom lined with sawdust, pillow under the head, silk gown, cap | Reeves and Adams 1993, 112 |
| 014 | United Kingdom, Greater London | London Spitalfields, Christ Church | burial | F | 48 | burial 2259 | 1754 | burial in a leaden, leaky coffin, with shroud and face cover, mattress, coffin filled with sawdust | Reeves and Adams 1993, 112 |
| 015 | United Kingdom, Greater London | London Spitalfields, Christ Church | burial | ND | ND | burial 2331 | 18th-19th c. | bottom of the coffin covered with a mattress, 10-20 mm thick, covered with cotton cloth and filled with hay, body wrapped in a shroud | Reeves and Adams 1993, 116 |
| 016 | United Kingdom, Greater London | London Spitalfields, Christ Church | burial | F | 60 | burial 2575 | 1823 | head on a cotton fabric covered pillow filled with hay | Reeves and Adams 1993, 117 |
| 017 | United Kingdom, North West England, Cheshire | Chester, Christ and St Mary's Cathedral Church | church burial, southern nave | M | ca. 84 | Ranulph Higden | 1364 | staff from hazel (*Corylus avellana*) placed centrally on the body | Gilchrist and Sloane 2005b, 175 |
| 018 | United Kingdom, South East England, Hampshire | Winchester, Cathedral Church of the Holy Trinity, St Peter and St Paul and St Swithun | church burial, southern nave | M | *senilis* | NN | 13th c. | man buried in long woollen tunic, grave cavity lining: oak leaves, straw/cereal stalks | Gilchrist and Sloane 2005b, 145-146 |
| 019 | United Kingdom, South East England, West Sussex | Chichester, Cathedral of the Holy Trinity | church burial | M | 56 | Richard, Bishop of Chichester | d. 3 April 1253 | hazel staff (*Corylus avellana*) inside the grave | Sanke 2012, 475 |
| 020 | United Kingdom, South West England, Somerset | Glastonbury, Chapel of St Mary the Virgin | burials | ND | ND | ND | ND | 18 oak coffins, the heads of the deceased rested on wooden shavings – pillows?, below and to the right of the body a hazel staff | Gilchrist and Sloane 2005b, 147 |

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|---|---|---|---|---|---|---|---|---|---|
| 021 | United Kingdom, West Midlands, Herefordshire | Hereford, Cathedral Church of St Mary and St Ethelbert the King | church burial | M | 66/67 | Richard Mayew, bishop | d. 1516 | on the right side, parallel to the coffin wall, a twig of hazel (*Corylus avellana*) , in the burial three St James' shells (*Pecten maximus*) | Sanke 2012, 475 |
| 022 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | burial | F | ND | Elisabeth Audley | ND | wooden coffin, hazel staff (*Corylus avellana*) at the side | Gilchrist and Sloane 2005b, 172-176 |
| 023 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial | M | adult 46+ | NN | 1220-1350 | two wooden staffs | Gilchrist and Sloane 2005a |
| 024 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial | F | 16-25 | NN | 1220-1538 | a woman in a coffin, wrapped in rushes, plants collected in late summer in a wet meadow | Gilchrist and Sloane 2005a |
| 025 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial | M | 16-25 | NN | 1220-1538 | two wooden staffs | Gilchrist and Sloane 2005a |
| 026 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial at the intersection of the naves | M | adult | NN | end of the 13th or early 14th century | pilgrim's staff, seal imprint from the Hospital of the Holy Spirit in Rome, shroud pinned, leather shoes – pilgrim accessories | Gilchrist and Sloane 2005a |
| 027 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial | M | 26-45 | NN | 1350-1538 | grave with stone enclosure, staff with eagle-shaped tin appliqué | Gilchrist and Sloane 2005a |
| 028 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial | M | 26-45 | NN | 1350-1538 | pilgrim staff inside the grave | Gilchrist and Sloane 2005a |
| 029 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial | M | 26-45 | NN | 1350-1538 | pilgrim staff inside the grave | Gilchrist and Sloane 2005a |
| 030 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial | F | 26-45 | NN | 1220-1350 | two staffs from birch (*Betula*), fragments of wood near the feet, traces of organic matter between the femurs | Gilchrist and Sloane 2005a |
| 031 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial | NN | adult | NN | 1220-1350 | masonry grave, wooden staff, textiles | Gilchrist and Sloane 2005a |
| 032 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial | M | 26-45 | NN | 1220-1350 | six wooden staffs around the body, wax chalice in the vicinity of the chest | Gilchrist and Sloane 2005a |
| 033 | United Kingdom, West Midlands, Staffordshire | Hulton, Cistercian abbey church | church burial | M | adult 46+ | NN | 1350-1538 | wooden staff inside the grave? | Gilchrist and Sloane 2005a |

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|---|---|---|---|---|---|---|---|---|---|
| 034 | United Kingdom, West Midlands, Staffordshire | Lichfield, cathedral | church burial | M | ND | NN clergyman | 18th century | burial in a container hollowed out of stone and a wooden coffin inside, the coffin covered with a cloth with a red cross painted on it, on the cross was placed a chalice made of lead-tin alloy, covered with a paten, on the paten a host, in the chalice traces of wine, two wooden staffs on both sides of the body | Gilchrist and Sloane 2005b, 175 |
| 035 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial | M | adult 46+ | NN | 1150-1250 | wooden staff, wooden cross inside the grave | Gilchrist and Sloane 2005b, 176 |
| 036 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – N. transept | M | adult | NN | 1150-1250 | wooden staff inside the grave? | Gilchrist and Sloane 2005b, 176 |
| 037 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – chancel | M | adult | NN | 1250-1450 | staff with preserved bark, leather shoes, textiles | Gilchrist and Sloane 2005b, 176 |
| 038 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – transept | M | adult 46+ | NN | 1250-1450 | two wooden staffs, shoes, one staff across the body on the leg level | Gilchrist and Sloane 2005b, 176 |
| 039 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – transept | M | adult 46+ | NN | 1250-1450 | two wooden staffs, one staff across the body on the leg level | Gilchrist and Sloane 2005b, 176 |
| 040 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – transept | M | 26-45 | NN | 1250-1450 | three wooden staffs, two next to the body, one across the chest, 2 fragments of wood, footwear | Gilchrist and Sloane 2005b, 176 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| 041 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – transept | F | 26-45 | NN | 1250-1450 | burial on a board (?), probably a pilgrim's staff | Gilchrist and Sloane 2005b, 176 |
| 042 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – transept | NN | 0-5 | NN | 1250-1450 | wooden coffin, outside, next to the southern wall of the coffin, a pilgrim's staff | Gilchrist and Sloane 2005b, 176 |
| 043 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – nave | M | adult | NN | 1250-1450 | staff on the right side of the body, wooden cross | Gilchrist and Sloane 2005b, 176 |
| 044 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – transept | M | 16-25 | NN | 1250-1450 | burial on a board, staff on the right side of the body with preserved bark, covered with a board | Gilchrist and Sloane 2005b, 176 |
| 045 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – chancel | M | adult 46+ | NN | 1250-1450 | a staff on right side of body with preserved bark, cushion filled with plants | Gilchrist and Sloane 2005b, 176 |
| 046 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – chancel | M | adult | NN | 1250-1450 | a staff on the right side of the body, footwear | Gilchrist and Sloane 2005b, 176 |
| 047 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – nave | M | adult 46+ | NN | 1250-1450 | wooden staff inside the grave? | Gilchrist and Sloane 2005b, 176 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| 048 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – nave | NN | 11-15 | NN | 1250-1450 | short wooden staff inside the grave | Gilchrist and Sloane 2005b, 176 |
| 049 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – chancel | M | adult 46+ | NN | 1250-1450 | cushion, oval grave cavity, grave cavity lining: grasses (*Poaceae*), sedge (*Carex*), buttercup (*Ranunculus*), sorrel (*Rumex*) | Gilchrist and Sloane 2005b, 146 |
| 050 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – transept | M? | adult 26-45 | NN | 1250-1450 | pillow, burial looted?, grave cavity lining: hay, straw and moss | Gilchrist and Sloane 2005b, 146 |
| 051 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial at the intersection of the naves | F | *adultus* | NN | 1250-1450 | cushion, grave cavity lining: hay of wet grasslands, straw and moss | Gilchrist and Sloane 2005b, 146-147 |
| 052 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – transept | F | 16-25 | NN | 1327-1450 | two wooden staffs, beside the body, one across at leg level, Edward III coin | Gilchrist and Sloane 2005b, 176 |
| 053 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – nave | M | adult | NN | 1450-1525 | staff on the right side of the body, leather fragment | Gilchrist and Sloan 2005b, 176 |
| 054 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – transept | M | 26-45 | NN | 1450-1525 | wooden staff inside the grave | Gilchrist and Sloane 2005b, 176 |
| 055 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – nave | F | adult 46+ | NN | 1450-1525 | wooden staff inside the grave | Gilchrist and Sloane 2005b, 176 |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| 056 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – nave | M | 16-25 | NN | 1450-1525 | wooden staff inside the grave | Gilchrist and Sloane 2005b, 176 |
| 057 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – transept | F | adult 46+ | NN | 1450-1525 | staff on right side of body, hands folded as for prayer | Gilchrist and Sloane 2005b, 176 |
| 058 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burial – So. transept | M | *maturus* | NN | 1450-1525 | leather shoes, pilgrim's staff, remains of shroud, lining of the burial pit: parts of shrubs, grass, weeds of cultivated land | Gilchrist and Sloane 2005b, 176 |
| 059 | United Kingdom, West Midlands, Staffordshire | Sandwell, near West Bromwich, the church of St Mary Magdalene at the Benedictine Abbey | church burials – transept | M | *iuvenis* 0-6, *immaturus* 11-15, *senilis* 46+ | NN | 1450-1525 | three board burials; leather shoes, hose, pilgrim's staff, pillow of plants, grave pit lining: straw or hay, weeds and meadow flowers | Gilchrist and Sloane 2005b, 176 |
| 060 | United Kingdom, West Midlands, Worcestershire | Bordesley, St Mary's Church at the Cistercian monastery | church burial – transept | M | ND | NN | 12$^{th}$-16$^{th}$ c. | hazel twig (*Corylus avellana*) in grave | Gilchrist and Sloane 2005a, 2005b, 175 |
| 061 | United Kingdom, West Midlands, Worcestershire | Bordesley, St Mary's Church at the Cistercian monastery | cemetery burial | ND | ND | ND | 12$^{th}$-15$^{th}$ c. | willow twig (*Salix* L.) in grave | Gilchrist and Sloane 2005b, 175 |
| 062 | United Kingdom, West Midlands, Worcestershire | Worcester, Cathedral Church of Jesus Christ and the Blessed Virgin Mary | church burial – So. nave | M | *senilis* | NN | 13$^{th}$ c. | grave pit lining: oak leaves and straw/cereal stalks | Gilchrist and Sloane 2005b, 146 |
| 063 | United Kingdom, West Midlands, Worcestershire | Worcester, Cathedral Church of Jesus Christ and the Blessed Virgin Mary | church burial – So. nave | M | ca. 60 | NN (dyer Robert Sutton?) | 1480-1510 | 'pilgrim' – wearing woollen robes and knee-high boots, beside the body a wooden staff and a perforated clam shell (cockle – *Cardiidae*), the staff made of ash wood, fitted with a double spike at one end and traces of a horn tip at the other, the shaft covered with purple paint made from bone black mixed with kermes crimson – a dye from the female specimens of Kermes insects that feed on Kermes oak (*Quercus coccifera* L.) and on evergreen oak (*Quercus ilex*), red dye similar to carmine (later made from Mexican cochineal); traces on joint and left upper limb, grave pit lining: laurel leaves, willow (*Salix* L.) and laurel (*Laurus nobilis*) twigs | Gilchrist and Sloane 2005b, 146; Lubin 1990, 112-118; *Pilgrimage in Medieval Ireland...* |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| 064 | United Kingdom, Yorkshire and the Humber, North Yorkshire | Fountains Abbey, a former Cistercian abbey, located approximately 4 km south-west of the town of Ripon | church burial – transept | F, NN | adult, child | NN | Middle Ages | imprint of a cushion of organic matter in clay | Gilchrist and Sloane 2005b, 147 |
| 065 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | church burial | M | 26-45 | NN | 1320-1538 | two hazel staffs, leaves and twigs of boxwood (*Buxus sempervirens*) and hyssop seeds (*Hyssopus officinalis*) in the coffin filling | Evans 2014, 59; Gilchrist and Sloane 2005a, 2005b, 180 |
| 066 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | M | 26-45 | NN | 1320-1538 | wooden staff inside the grave | Gilchrist and Sloane 2005a |
| 067 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | F | adult 46+ | NN | 1320-1538 | two wooden staffs | Gilchrist and Sloane 2005a |
| 068 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | F | 26-45 | NN | 1320-1538 | wooden staff inside the grave | Gilchrist and Sloane 2005a |
| 069 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | M | 16-25 | NN | 1320-1538 | wooden staff inside the grave | Gilchrist and Sloane 2005a |
| 070 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | M | adult 46+ | NN | 1320-1538 | wooden staff inside the grave | Gilchrist and Sloane 2005a |
| 071 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | NN | 0-5 | NN | 1320-1538 | two wooden staffs, one broken in half | Gilchrist and Sloane 2005a |
| 072 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | F | 26-45 | NN | 1320-1538 | oak coffin, wooden staff inside the coffin | Gilchrist and Sloane 2005a |
| 073 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | M | 26-45 | NN | 1320-1538 | wooden staff inside the grave | Gilchrist and Sloane 2005a |
| 074 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | M | 26-45 | NN | 1345-1538 | wooden coffin, wooden staff inside the coffin | Gilchrist and Sloane 2005a |
| 075 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | M | 26-45 | NN | 1345-1538 | wooden coffin, wooden staff inside the coffin | Gilchrist and Sloane 2005a |

| Cat. No. | Administrative affiliation | Location | Source type | Sex of the deceased | Age of the deceased | Identification | Dating | Description of discoveries | Literature |
|---|---|---|---|---|---|---|---|---|---|
| 076 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery | burial | M | 26-45 | NN | 1345-1538 | wooden coffin, wooden staff inside the grave | Gilchrist and Sloane 2005a |
| 077 | United Kingdom, Yorkshire and the Humber, Yorkshire | Kingston upon Hull, Augustinian monastery, nave of the church | church burial | ND | ND | NN | mid-14$^{th}$ c. | skeleton in a coffin, a small insert of fresh or dried peat moss (*Sphagnum*) was found on the right side of the chest | Gilchrist and Sloane 2005b, 124-125 |
| 078 | United Kingdom, Yorkshire and the Humber, South Yorkshire | Sheffield, St Paul's Church, cemetery | burials | F, M | ND | NN | 1743-1850 | 16 coffins placed in the ground or in masonry shafts, filled with sawdust and shavings | Mahoney-Swales 2011, 215-231 |
| 079 | United Kingdom, Yorkshire and the Humber, South Yorkshire | Sheffield, The Upper Chapel | burial | F, M | ND | NN | 1717-1858 | sawdust under the coffin | Mahoney-Swales 2011, 215-231 |
| P1 | Italy, Trentino-Alto Adige/Südtirol, South Tyrol | Schluderns/Sluderno, castle Churburg | posthumous portrait | F | 2 | Clara Franciska von Trapp | d. 1634 | rose wreath on the head, flowers tucked under the body | Stankiewicz 2015, 104 |

# LIST OF SOURCES FOR ILLUSTRATIONS

Fig. 1. Albert Glöckner, *Wilhelm III. von Sachsen-Altenburg – portrait in the coffin*, Zeitz, Museum Schloss Moritzburg, photog. Carlo Böttger, https://st.museum-digital.de/index.php?t=objekt&oges=88658&cachesLoaded=true (accessed: 13.12.2018).

Fig. 2. *Posthumous portrait of Prince Christian von Sachsen-Altenburg*, 1663, Residenzschloss Altenburg.

Fig. 3. *Christian von Sachsen-Altenburg – portrait in funeral oration*, 1663, Darmstadt, Landes- und Hochschulbibliothek, O6123/10.

Fig. 4. *Portrait of the dead Caspar of Uchtenhagen in a coffin*, 1603, Bad Freienwalde, St Nicholas church, © Museum für Sepulkralkultur, Kassel, 2008-01, photog. McLeod, public domain, https://commons.wikimedia.org/w/index.php?curid=3427439 (accessed: 13.12.2018).

Fig. 5. *Lilium candidum*, in: W. Curtis, *The Botanical magazine, or, Flower-garden displayed*, Kew, Royal Botanic Gardens, 1794, Tab. 8, il., p. 278, Missouri Botanical Garden, Peter H. Raven Library, public domain, https://www.biodiversitylibrary.org/item/7356#page/133/mode/1up (accessed: 20.10.2022).

Fig. 6. *Rosa canina*, in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz*, 1885, Gera-Untermhaus, public domain, https://commons.wikimedia.org/w/index.php?curid=1412312 (accessed: 13.12.2018).

Fig. 7. Adriaen van de Venne, Willem Hondius, Emblem *Ogni fiore/ al fin perde l'odore*, in: Jacob Cats, *Spiegel van den Ouden ende Nieuwe Tijd*, Hague, 1632, British Museum, 1952,0117.14.47, CC BY-NC-SA 4.0, https://www.britishmuseum.org/collection/object/P_1952-0117-14-47 (accessed: 28.10.2022).

Fig. 8. Matthijs van den Bergh, *Little boy on his deathbed*, Collection City of Antwerp, Rubenshuis, RH.S.041, photog. Michel Wuyts & Louis De Peuter.

Fig. 9. *Tombstone of Sophia Juliana von Bibra*,1690, Bibra, Evangelical church, photog. Annemarie Huhn.

Fig. 10. Christian Schäffer, *Dorothea Maria von Sachsen-Zeitz*, Zeitz, Museum Schloss Moritzburg, photog. Carlo Böttger, https://st.museum-digital.de/index.php?t=objekt&oges=950&cachesLoaded=true (accessed: 13.12.2018).

Fig. 11. Gerard van Honthorst (workshop), *Portrait of Maria van Nassau-Oranje as the goddess Flora*, after 1653, Olsztyn, Muzeum Warmii i Mazur, MNO-46 OMO.

Fig. 12. *Convallaria majalis* L., public domain, https://commons.wikimedia.org/w/index.php?curid=67811350 (accessed: 28.10.2022).

Fig. 13. *Narcissus poeticus* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, 1885, Gera-Untermhaus, public domain, https://commons.wikimedia.org/w/index.php?curid=9076 (accessed: 7.12.2018).

Fig. 14. *Aurora Katharina Formentini zu Talmein*, Güssing, Franciscan monastery, 1653.

Fig. 15. *Semper Augustus*, in: *Great Tulip Book*, 17th century, Norton Simon Art Foundation.

Fig. 16. *Anemone nemorosa* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, 1885, Gera-Untermhaus, public domain, https://commons.wikimedia.org/w/index.php?curid=8589 (accessed: 28.10.2022).

Fig. 17. Christian Schäffer, *Magdalena Sybilla von Sachsen-Zeitz – portrait in a coffin*, 1672, Zeitz, Museum Castle Moritzburg, photog. Carlo Böttger, https://st.museum-digital.de/index.php?t=objekt&oges=949&cachesLoaded=true (accessed: 13.12.2018).

Fig. 18. *Post-mortem portrait of Karl Zdeněk of Žerotín*, 1620, Státní zámek Velké Losiny.

Fig. 19. *Coffin portrait of Antonia von Württemberg who died on the 1st of October 1679*, Stuttgart, Württembergisches Landesmuseum.

Fig. 20. *Catherina ter Borch in her coffin*, in: *Familie-plakboek van Gesina ter Borch*, Rijksmuseum Amsterdam (BI-1887-1463), folio 43, public domain, http://hdl.handle.net/10934/RM0001.COLLECT.430440 (accessed: 28.10.2022).

Fig. 21. Jan Jansz de Stomme, *Portrait of the dead child*, 1654, Museum Groningen, photog. Marten de Leeuw.

Fig. 22. *Myrtus communis,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9069 (accessed: 22.10.2020).

Fig. 23. *Mourning portrait of Catherine Horvath-Stansith*, 1670-1700, Bratislava, Slovenská národná galéria, public domain, https://www.europeana.eu/en/item/2063610/O_4842 (accessed: 20.01.2020).

Fig. 24. *Friedrich III. von Schleswig-Holstein-Gottorp – portrait in funeral oration*, 1659, Darmstadt, Landes- und Hochschulbibliothek, O6249/55.

Fig. 25. *Hannibal Gustaf Wrangel of Salmis*, 1641-43 (? 1646), Skokloster Castle, SKO 11690, public domainhttp://emuseumplus.lsh.se/eMuseumPlus?service=ExternalInterface&module=literature&objectId=13736&viewType=detailView (accessed: 28.10.2022).

Fig. 26. *Posthumous portrait of a child from the Dobai family*, after 1737, Galéria mesta Bratislavy.

Fig. 27. *Memorial for Dorothea Amalia and Carl Christoph, the children of Duke Eberhard III. von Württemberg*, 1650, Landesmuseum Württemberg, photog. P. Frankenstein, H. Zwietasch.

Fig. 28. *Tomb sculpture of Count Heinrich III. von Sayn with his daughter (?)*, circa 1247/48, Nurnberg, Germanisches Nationalmuseum.

Fig. 29. *Nepeta cataria* L., in: J.G. Sturm, *Deutschlands Flora in Abbildungen*, Stuttgart, 1796, public domain, https://commons.wikimedia.org/w/index.php?curid=742712 (accessed: 21.10.2022).

Fig. 30. *Capsella bursa-pastoris,* in: H. Bock, *Kräuterbuch*, Straßburg 1546, public domain, https://commons.wikimedia.org/w/index.php?curid=87311491 (accessed: 21.10.2022).

Fig. 31. *Remains of a bouquet from the cemetery at St Elizabeth Church in Wrocław*, Archaeological Museum in Wrocław, photog. T. Gąsior.

Fig. 32. *Coffin portrait of Johann Casimir Wittelsbach who died on the 16th of January 1592*, Heidelberg, currently: Sächsische Landesbibliothek-Staats- und Universitätsbibliothek Dresden.

Fig. 33. *Anna Johanna von Württemberg – posthumous portrait*, 1679, Stuttgart Württembergisches Landesmuseum.

Fig. 34. *Melissa officinalis,* in: G. Pabst (Hrsg.), *Köhler's Medizinal-Pflanzen in naturgetreuen Abbildungen mit kurz erläuterndem Texte: Atlas zur Pharmacopoea germanica, austriaca, belgica, danica, helvetica, hungarica, rossica, suecica, Neerlandica, British pharmacopoeia, zum Codex medicamentarius, sowie zur Pharmacopoeia of the United States of America*, Gera-Untermhaus, 1887, public domain, https://commons.wikimedia.org/w/index.php?curid=67134060 (accessed: 21.10.2022).

Fig. 35. *Sonchus arvensis* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9042 (accessed: 21.10.2022).

Fig. 36. *Atriplex* L., in: J.G. Sturm, *Deutschlands Flora in Abbildungen*, Stuttgart, 1796, public domain, https://commons.wikimedia.org/w/index.php?curid=732586 (accessed: 31.10.2022)

Fig. 37. *Agrimonia* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=2077324 (accessed: 25.10.2020)

Fig. 38. *Posthumous portrait of the son of the Grand Chancellor of Lithuania Christopher Sigismund Pac and Clara de Mailly-Laskaris*, 1661, Kaunas, Pažaislis monastery, currently: National Museum in Warsaw.

Fig. 39. *Lycopodium clavatum,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=28409539 (accessed: 22.10.2020).

Fig. 40. *Artificial flowers from the cemetery at St Elizabeth Church in Wrocław*, Archaeological Museum in Wrocław, photog. T. Gąsior.

Fig. 41. *Cichorium intybus* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=7046954(accessed: 25.10.2020).

Fig. 42. *Prince Moritz von Sachsen-Zeitz*, 1653, Zeitz, Museum Schloss Moritzburg, photog. Carlo Böttger, https://st.museum-digital.de/index.php?t=objekt&oges=945&cachesLoaded=true (accessed: 13.12.2018).

Fig. 43. *Rosmarinus officinalis* in: G. Pabst (Hrsg.), *Köhler's Medizinal-Pflanzen in naturgetreuen Abbildungen mit kurz erläuternden Texten: Atlas zur Pharmacopoea germanica, austriaca, belgica, danica, helvetica, hungarica, rossica, suecica, Neerlandica, British pharmacopoeia, zum Codex medicamentarius, sowie zur Pharmacopoeia of the United States of America*, Gera-Untermhaus,1887, public domain, https://commons.wikimedia.org/w/index.php?curid=84311282 (accessed: 31.10.2022).

Fig. 44. *Artemisia abrotanum,* in: Hieronymus Bock, *Kräuterbuch*, Straßburg, 1546, public domain, https://commons.wikimedia.org/w/index.php?curid=86421943 (accessed: 21.10.2022).

Fig. 45. *Ruta graveolens* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, Public domain, https://commons.wikimedia.org/w/index.php?curid=9144 (accessed: 31.10.2022).

Fig. 46. *Juniperus communis* L., photog. I. Leidus, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=110314526 (accessed: 31.10.2022).

Fig. 47. *Salix alba* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus,* Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/wiki/File:Illustration_Salix_alba0.jpg (accessed: 22.10.2023)

Fig. 48. *Mentha pulegium* L.in: J. Kops, *Flora Batava of Afbeelding en Beschrijving van Nederlandsche Gewassen*, IX, Amsterdam, 1846, public domain, https://commons.wikimedia.org/w/index.php?curid=18902078 (accessed: 22.10.2020)

Fig. 49. *Chrysanthemum leucanthemum* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9030, (accessed: 22.10.2020).

Fig. 50. *Gypsophila paniculata* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=8542 (accessed: 22.10.2020)

Fig. 51. *Vinca minor,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=8606 (accessed: 22.10.2020).

Fig. 52. *Helichrysum arenarium,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=8979 (accessed: 22.10.2020)

Fig. 53. *Preparation of the corpse* from *The Hours of Catherine of Cleves*, circa 1440, Utrecht, MS M.917/945, ff. 99v, New York, The Morgan Library & Museum.

Fig. 54. Pieter Brueghel the Elder, *Triumph of death*, 1562, Madrid, Museo del Prado, public domain, https://commons.wikimedia.org/w/index.php?curid=74450965 (accessed: 20.03.2019).

Fig. 55. Bartholomeus van der Helst, *Portrait of the dead child*, 1645, Gouda, Stedelijk Museum Het Catharina Gasthuis.

Fig. 56. *A child of the Honigh Family on its deathbed*, 1675-1700, Den Haag Mauritshuis, public domain, https://www.europeana.eu/item/2021672/resource_document_mauritshuis_603?q=deathbed (accessed: 20.01.2020).

Fig. 57. *Tombstone of Johannes Ballivi*, 1520, Tallinn, St Nicholas Church, photog. Robert Reisman, CC BY 3.0, https://commons.wikimedia.org/w/index.php?curid=21385523 (accessed: 31.10.2022)

Fig. 58. Hermen Rode, *Altarpiece of the Guild of St Luke – death of St Luke the Evangelist*, 1480-1490, Lübeck, St Annen-Museum.

Fig. 59. *Body is sewn into shroud by woman*, *Book of Hours*, Paris, circa 1485-1490, MS M.231 fol. 137r, New York, The Morgan Library & Museum.

Fig. 60. *Laurus nobilis* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, 1885, Gera-Untermhaus, public domain, https://commons.wikimedia.org/w/index.php?curid=8960 (accessed:21.10.2022).

Fig. 61. *Calluna vulgaris* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, 1885, Gera-Untermhaus, public domain, https://commons.wikimedia.org/w/index.php?curid=8960 (accessed: 15.12.2023).

Fig. 62. *Achillea millefolium* L., in: G. Pabst (Hrsg.), *Köhler's Medizinal-Pflanzen in naturgetreuen Abbildungen mit kurz erläuterndem Texte: Atlas zur Pharmacopoea germanica, austriaca, belgica, danica, helvetica, hungarica, rossica, suecica, Neerlandica, British pharmacopoeia, zum Codex medicamentarius, sowie zur Pharmacopoeia of the United States of America*, Gera-Untermhaus,1887, public domain, https://commons.wikimedia.org/w/index.php?curid=255484 (accessed: 20.10.2020).

Fig. 63. *Plantago major,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, 1885, Gera-Untermhaus, public domain, https://commons.wikimedia.org/w/index.php?curid=9556 (accessed: 22.10.2022).

Fig. 64. *Avena sativa,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9494 (accessed: 20.10.2022).

Fig. 65. *Origanum vulgare,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9441 (accessed: 22.10.2022).

Fig. 66. *Anethum graveolens,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=6851092 (accessed: 21.10.2022).

Fig. 67. *Hyssopus officinalis,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9426 (accessed: 22.10.2022).

Fig. 68. *Thymus serpyllum,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9455 (accessed: 21.10.2022).

Fig. 69. *Thymus vulgaris*, Auckland Museum Herbarium, photog. Ewen Cameron, CC BY 4.0, https://commons.wikimedia.org/w/index.php?curid=64715433 (accessed: 21.10.2022).

Fig. 70. *Lavandula,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9445 (accessed: 21.10.2022).

Fig. 71. *Matricaria recutita* L., in: G. Pabst (Hrsg.), *Köhler's Medizinal-Pflanzen in naturgetreuen Abbildungen mit kurz erläuterndem Texte: Atlas zur Pharmacopoea germanica, austriaca, belgica, danica, helvetica, hungarica, rossica, suecica, Neerlandica, British pharmacopoeia, zum Codex medicamentarius, sowie zur Pharmacopoeia of the United States of America*, Gera-Untermhaus, 1887, public domain, https://commons.wikimedia.org/w/index.php?curid=255369 (accessed: 21.10.2022).

Fig. 72. *Coriandrum sativum,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=8838 (accessed: 21.10.2022).

Fig. 73. *Foeniculum vulgare,* in: G. Pabst (Hrsg.), *Köhler's Medizinal-Pflanzen in naturgetreuen Abbildungen mit kurz erläuternden Texten: Atlas zur Pharmacopoea germanica, austriaca, belgica, danica, helvetica, hungarica, rossica, suecica, Neerlandica, British pharmacopoeia, zum Codex medicamentarius, sowie zur Pharmacopoeia of the United States of America*, Gera-Untermhaus, 1887, public domain, https://commons.wikimedia.org/w/index.php?curid=88512286 (accessed: 21.10.2022).

Fig. 74. *Scrophularia nodosa* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=7047122 (accessed: 21.10.2022).

Fig. 75. *Senecio Jacobaea,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9019 (accessed: 21.10.2022).

Fig. 76. *Tagetes erecta* L., in: E. Step, W. Watson, *Favourite Flowers of Garden and Greenhouse*, 2, London & New York, Frederick Warne & Co., 1897, Tab. 144, photog. Alice Chodura, public domain, https://commons.wikimedia.org/w/index.php?curid=43195255 (accessed: 21.10.2022).

Fig. 77. *Tanacetum vulgare* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=8977 (accessed: 21.10.2022).

Fig. 78. *Artemisia vulgaris,* in: G. Pabst (Hrsg.), *Köhler's Medizinal-Pflanzen in naturgetreuen Abbildungen mit kurz erläuternden Texten. Atlas zur Pharmacopoea germanica, austriaca, belgica, danica, helvetica, hungaria, rossia, suecica, Neederlandica, British pharmacopoeia, zum Codex medicamentarius, sowie zur Pharmacopoeia of the United States of America*, Bd. 3, Verlag von Franz Eugen Köhler, Gera-Untermhaus, 1898, public domain, https://commons.wikimedia.org/w/index.php?curid=61570145 (accessed: 22.10.2022).

Fig. 79. *Artemisia absinthium* L., in: G. Pabst (Hrsg.), *Köhler's Medizinal-Pflanzen in naturgetreuen Abbildungen mit kurz erläuterndem Texte: Atlas zur Pharmacopoea germanica, austriaca, belgica, danica, helvetica, hungarica, rossica, suecica, Neerlandica, British pharmacopoeia, zum Codex medicamentarius, sowie zur Pharmacopoeia of the United States of America*, Gera-Untermhaus, 1887, public domain, https://commons.wikimedia.org/w/index.php?curid=255501 (accessed: 21.10.2022).

Fig. 80. *Stachys officinalis,* in: J. Kops, *Flora Batava of Afbeelding en Beschrijving van Nederlandsche Gewassen*, XI, Amsterdam 1853, public domain, https://commons.wikimedia.org/w/index.php?curid=18912640 (accessed: 21.10.2022).

Fig. 81. *Succisa pratensis,* in: Hieronymus Bock, *Kräuterbuch*, Straßburg, 1546, public domain, https://commons.wikimedia.org/w/index.php?curid=86610788 (accessed: 21.10.2022).

Fig. 82. *Sambucus nigra* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9115 (accessed: 21.10.2022).

Fig. 83. *Linaria vulgaris* L., in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=2085760 (accessed: 21.10.2022).

Fig. 84. *Hordeum vulgare,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=2779453 (accessed: 20.10.2022).

Fig. 85. *Panicum miliaceum,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=9539 (accessed: 20.10.2022).

Fig. 86. *Fagopyrum esculentum,* in: O.W. Thomé, *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, Gera-Untermhaus, 1885, public domain, https://commons.wikimedia.org/w/index.php?curid=7046276 (accessed: 20.10.2022).

Fig. 87. *Solanum nigrum,* in: J.G. Sturm, *Deutschlands Flora in Abbildungen*, Stuttgart, 1796, public domain, https://commons.wikimedia.org/w/index.php?curid=764403 (accessed: 20.10.2022).

Fig. 88. *Portrait of a deceased girl*, beginning of 20th century, Historisches Museum Regensburg.

Fig. 89. *Bartholomäus II. Viatis – portrait on a bed of state*, 1644, Nuremberg, Germanisches Nationalmuseum.

Fig. 90. *Humulus lupulus,* in: Thomé O.W., *Flora von Deutschland, Österreich und der Schweiz – in Wort und Bild für Schule und Haus*, 1885, Gera-Untermhaus, public domain, https://commons.wikimedia.org/w/index.php?curid=8728 (accessed: 21.10.2022).

Fig. 91. *Portrait on the bed of state of Wilhelm von Sachsen-Weimar who died on the 17th of May 1662*, Skokloster Castle, SKO 11733, photog. Samuel Uhrdin, public domain, https://commons.wikimedia.org/w/index.php?curid=28895039 (accessed: 20.03.2020).

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